NEW ENGLAND FARMER.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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NOURSE, EATON & TOLMAN, PROPRIETORS.
OFFICE....34 MERCHANTS' ROW.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
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THOUGHTS FOR JUNE.

Dost then the green earth teem with gladness?
Has Nature dropt her robe of sadness?
Do the swains pipe;—the flocks rejoice;
The mountains echo Bacchus' voice;—
The mariners their sails unloose;
The bees distil their luscious juice?
Has Spring inspired the warbling throng?
—And can't the poet make a song?

MELEAGROS SPRING.

We think the bard scarcely needs an apology for his strains, at this most glorious and jubilant season of the year. It is true, the bard whose language we have quoted above, breathed forth his song on the plains of Syria, where spring comes with a more elastic step than she comes to us in our northern home on the Atlantic slope of our comparatively newly discovered continent; but her smiles are no less exhilarating because the sunny days come slowly, alternating with storms and tempests, and the fair JUNE lingers, as it were, tardily in the lap of May. Flowers would not possess half their sweetness, were it not for their frail and perishing nature. The love of the beautiful is inherent in our nature. It is this which causes us, as children, to delight in the varying colors of the soap bubble, and its buoyancy as it floats on the surface of the stream, beautiful even as it is evanescent. And how often have we, the wisest of us, bowed in adoring homage before a lovely face, or a faultless figure, and felt that it was for the appreciation of such fascinating and wondrous developments of loveliness, that our most noble faculties were conferred upon us by HIM whose hand dispenses goodness, and who formed us for a life of usefulness, as well as for happiness and delight.

When we look out upon the wide world, and permit our gaze to rest upon the great mass of varied and ever varying life that pulsates without the narrow circle of our own selfish interests, we are often inclined to doubt whether, in the exorbitance of our own self-love, we have not overlooked, or neglected, more important duties than we have performed. From that region, there often comes to us a voice of upbraiding, which makes itself heard, and which recalls us to ourselves with an awakening sense of our obligations, and of the inhumanity, if not of the actual criminality of longer disregarding them!

At such a moment, under the twilight skies of the radiant and odorous JUNE,

> "The friendships old and the early loves
> Come back with the Sabbath sound of doves
> In quiet neighborhoods,"—

causing us to realize that it was not all a dream—an illusion of the senses, where the heroine of "Jane Eyre"—one of the most exquisitely conceived and beautifully executed things in modern literature—seemed to recognize the vision of "Rochester," calling to her from the mysterious darkness of night, and reminding her of much that her selfishness counselled her to forget. A man is never more a man, than when he bares his heart to the sweet and gentle influences of nature; never more truly religious, or more completely happy, than when, by extending the limits of his own little world of self, he embraces within its circumference a portion of the world without. This is the act of philanthropy—of that kindly charity which "hopeth all things," and is

ever ready, in its zeal, to discover and succor the needy and distressed.

"In the days of Scorn, the storms of Hate,
In the darkness of Hope deferred full late,
Through days when the world shows desolate,
Must sleep the good deeds thou hast done;
Faithfully labor—patiently wait—
Thy work shall see the sun."

JUNE is a beautiful month; for the farmer, it is also a busy one. The numerous crops on which he relies for sustenance are now vigorously springing, and calling for his sustaining hand. In the field and garden, his most unremitting attention is required, and there, among the beautiful forms of the vegetable and floral world, he will find affluent sources of enjoyment:

"Springs whence he may drink uncloyed,
The nectar draught that Heaven gives,
And feel the pleasure unalloyed
Of nature's courts," &c.,

without the curse of weariness, for it is a property of even her blandest blessings that they never weary by repetition, or produce disgust in the minds of those who are qualified to appreciate and enjoy them.

——Beautiful to view,
Month of my heart! thou dawnest here."

The farmer who attends strictly to his business, may not, perhaps, become wealthy; but an ample competency of the goods of life is *certainly* within his reach. But, in the language of Tristram Shandy, "Riches are not the chief object of rational pursuit, nor by any means the most important reward of industrial effort." There is, perhaps, no proposition in ethics more susceptible of demonstration than that most accumulations of wealth, whether in the hands of individuals, or of corporations, tend to popular corruption and the depravity of morals. This is likely to be the consequence in a majority of cases; but in the case of the farmer, vast wealth is rarely, if ever, attained.

In the language of EVERETT: "His glory is to create and construct. Other men may fetch and carry, and exchange; all rests at last on his primitive action. He is close to nature. The food which was not, he makes to be. All nobility rests on the use of land. Tillage is the original calling of the race; many men are excused from it, yet if they have not something to give the farmer for his corn, they must return to their planting. The farmer stands nearest to God, the first cause."

Occupying a position of so much honor and importance, how necessary that he should realize its many duties, and by a proper exercise of his heaven-conferred attributes and faculties, endeavor to secure their performance.

FAT SOWS FOR BREEDERS.

John Skaats, of Alexandria, N. Y., has successfully raised pigs from pork-fat sows, for the last fifteen years, and his experience is, "the fatter the better." The correctness of this principle is doubted by the editor of the *Genesee Farmer*, while it is fully endorsed by a writer for the *Valley Farmer*, who adds the following remarks:

We deem the system practiced by Mr. Skaats as the only correct one in breeding swine, and it is precisely the one that we have always practiced. Sows should never be bred till they are at least 18 months old, nor a boar under 12, or better 18 months old. Up to this age sows should not be allowed to get excessively fat, until they are with pig, and then they can hardly be too fat, with prudent keeping. Pigs, when they first come from such sows are usually small, but the sow has a store of flesh which she will impart to them in an increased flow of rich milk, and the pigs will start off unimpeded, and, with proper care, even on Western farms, may attain proper size for the knife (say from 250 to 350 lbs.) at 12 or 18 months old. It is important that none but the best sows be reserved for breeding, and it is equally important that each sow bring two litters a year. When the pigs are about two months old take them at once from the sow. The sudden check in the secretion of milk will cause her *at the end of four days* to come in season. She is then reduced somewhat in flesh, and she will not fail to breed. Then continue generous feeding as when she was giving milk, and she will again become fat. Continuing this course, with properly selected sows, two litters of pigs may be regularly had within the twelve months, and up to five or six years the sow will continue to improve as a breeder. With suitable crosses and well selected boars, the breeds of swine may be constantly improved; whereas, by the ordinary management of ninety-nine hundreths of the Western farmers, the best breeds will constantly deteriorate.

For the New England Farmer.

SHEEP AND DOGS.

Sheep raising is considered one of the most profitable branches of husbandry in New England. But no one dares to engage in the business, because the country is overrun with dogs, suffered to go where they please. Dr. Loring, of Salem, justly said, at an agricultural meeting in the State House, "It is a burning shame that we cannot raise sheep in Massachusetts by reason of dogs." It is true that we cannot keep sheep in safety; and our farmers are deprived of a great source of profit by it. It is pretended that our wise legislators have provided a law, good and strong, to protect the farmer against the ravages of dogs, if put in force, and oblige the town to pay the damages.

This law is not worth the paper it is written on, so far as giving safety to the sheep is concerned, as it does not meet the demands in the case. So long as there are five thousand dogs kept, and suffered to run at large, in Essex county, there will be no sheep raising in the county. Who would invest his money in sheep, and turn

them into his pasture to be the sport of dogs, and in a few days be grieved and vexed by finding the mangled carcass of some of his most choice lambs, or ewes, others wounded, and the remainder frightened, and fled to parts unknown? After such scenes have been enacted among them, the fences offer but little resistance to their flight, and they might as well be put under the charge of the drover, and marched off to the shambles at once. The law that awards the damage done to our sheep, is not the thing. We wish to have secured to us the privilege to keep our sheep, for the profit in the business. The law must prohibit dogs from running at large, to secure a safeguard to sheep husbandry.

Such a law is demanded. It would injure no man. If our fancy men wish to select their companions from the canine race, and keep company with dogs, let them provide safe quarters for them where they will do no one any damage. If we keep a pig, or a cow, we must keep them within our own inclosure. But dogs may be kept without number, to go wheresoever they list; and thus prevent one of the most profitable and interesting branches of husbandry in our country. This ought not to be. If I wish to keep sheep, I must flee back to the hills of Vermont, or New Hampshire, to get out of the way of the dogs. It is not entirely safe there; but altogether out of the question here. Where is our remedy? We want something done in this direction.

A. PHILBROOK.

East Saugus, March, 1861.

EXTRACTS AND REPLIES.

SOWING HERDS GRASS SEED WITHOUT A GRAIN CROP.

I saw an inquiry in the *Farmer* whether herds grass would do well without a grain crop. I have sowed herds grass in this way two years, and raised a ton and a half, or two tons to the acre, on ground that had not been manured. It wants to be sowed the last of April, or the first of May. It will be in the blow the last of August. I have sowed Hungarian grass the past season. I sowed one piece of Hungarian, and stocked with herds grass. It yielded three or four tons to the acre. The herds grass took well; headed out a good deal of it. I sowed a piece of wheat and stocked it; it did not catch a quarter as well.

CHESTER S. ALLEN.

Goshen, Vt., April, 1861.

SNOW ON A CRANBERRY MEADOW.

Will cranberries succeed on a low, muck swamp, where the snow lies until the first of May, and does not blow off in winter? Will the snow lying on so long answer the purpose of flowing?

WILLIAM F. GIBSON.

Ryegate, Vt., April, 1861.

REMARKS.—If the snow falls upon the plants before severe cold weather sets in, remains until the first of May, and does not settle down into ice, we think it must perfectly protect the plants through the winter. This will not, however, render flowage unnecessary in June, to kill the worm, if the plants should be attacked by it.

CRANBERRY PLANTS.

What time is the best to transplant cranberry plants? Where is the best place to procure them? How long will it do to keep them out of the ground, as I want to carry them about eleven hundred miles? What is the general price per hundred?

N. P.

North Providence, 1861.

REMARKS.—Transplant in April or May, or even later, if they were taken up before the leaves had started. They abound in this State and Connecticut, and can be procured in many places. We cannot refer you to an individual who makes it a business to sell plants. If the plants are well packed in moss, and kept damp, they may be safely kept out of the ground for several weeks.

ABOUT DISSOLVING BONES.

In the March number I saw two statements for dissolving bones; one with ashes, and the other with sulphuric acid. I would like to know the cost of sulphuric acid per pound, what the mixture is worth after being prepared, and what it is worth dissolved with ashes. I should like to know the value of carrots, mangolds, round and Pennsylvania turnips, compared with potatoes, to feed to hogs in the winter.

Hardwick, Vt., April. INQUIRER.

REMARKS.—Sulphuric acid sells at three or four cents per pound. We cannot give you the comparative values you inquire for.

A GOOD WHEAT CROP.

Horace Collamore, Esq., of Pembroke, Mass., raised the last season fifty-four bushels of prime Java wheat on one and a half acres of land.

For the New England Farmer.

ARE OATS INJURIOUS TO SHEEP?

MESSRS. EDITORS:—Perhaps I cannot better answer this inquiry, made by a correspondent in a late number of the weekly *Farmer*, than by giving a brief account of my method of feeding sheep at this season of the year. It is very essential that sheep should receive extra care and keeping during the months of March and April, or until the growth of grass; especially such sheep as are expected and desired to raise lambs. It has been my practice to feed sheep upon oats, or a mixture of oats and beans in the proportion of two and one. The amount of feed is from ten to twelve quarts of oats, unground, to thirty-three sheep per day; or six or eight quarts of the mixture to the same number. I commence feeding about the first of March, and continue it until the sheep leave the barn. This amount of grain, together with a sufficiency of good hay, I think sufficient.

The result is, my sheep are kept in good condition; the lambs come strong and remain so, attended with no losses, if properly sheltered and attended to, of sheep or lambs. Such has been my experience. Should be glad to learn the experience of others.

I. W. SANBORN.

"*The Meadows*," *Lyndon, Vt.*, 1861.

For the New England Farmer.

STRAW BEE HIVES.

Bee keepers want a straw hive adapted to improved bee culture. Mr. Langstroth, speaking of the best materials for hives, says: "Straw hives have been used for ages, and are warm in winter and cool in summer. The difficulty of making them take and retain the proper shape for improved bee-keeping, is an insuperable objection to their use." This is no longer so, for I have succeeded in getting a form adapted to the movable frames; but as it is not at all likely that I have the best form—not being gifted in making improvements in bee-hives—I want some ingenious Yankee, that is now wasting his energies on worthless patent contrivances, to use them in another direction, where they may be of some benefit.

That straw is a desirable material for a bee-hive, is indicated by their uniformly sending out earlier swarms, and of other advantages in consequence of their doing this, we have much proof.

Several years since, with a partner, I bought twenty-two straw hives; these, with forty others, made of wood—equally as populous, and as well-stored—were placed in one yard. As the swarming season approached, these were found to contain the strongest colonies. The first five swarms were from them, and when seventeen had issued, only four were from the others. All but two cast swarms, and several of them two or three, while full one-third of the wood hives failed to swarm at all through the season. This shows a decided superiority. As long as these stocks lasted, they continued to throw out earlier swarms. Others who have used them, all testify that they are better in this respect than wood hives. I can safely take the average time at ten days earlier. The swarming season is generally the time when bees get most honey. A colony that would collect three pounds per day, during the honey harvest, would be just thirty pounds better off at the end of the season. This amount stored in surplus boxes, and sold at 20 cents, would be in value as much as a good swarm of bees. In many seasons, we have a full yield of honey for only a few days. A swarm located at the end of that period might fail to get even winter stores, when ten days earlier would have made all safe. It is unnecessary to offer proof that early swarms are better than late ones—all admit it. Yet when I have shown that straw hives *will* give us earlier swarms, the question at once arises: If straw hives are so very valuable, why have they been so generally discarded? They were used almost universally eighty years ago. They were, soon after that time, put aside on account of the moth, which, when first introduced into our country, exceeded in its ravages anything of the present day. Its nature and habits were less understood—it seemed to be new to the bees as well as man, they did not know how to expel it—it was found enshrouded in its cocoon, in the interstices of the straw, and was supposed to have been nourished, and bred there. It is supposed by many at the present day, that it is bred in the cracks and flaws about the hive, instead of among the combs, where it usually does all its mischief before it leaves to spin its cocoon. Hives made of wood, afforded fewer facilities for the worm to hide away, and were used in preference on that account. But this is not an objection at the present time. The moth does not affect bees in a straw, any more than in a wood hive.

Another objection is in the shape they have given the straw hive; the round conical form gradually terminating in an obtuse point, which gives no chance of using surplus boxes. As the only inducement in bee-keeping with most people consists in the surplus honey, a hive affording no facilities for obtaining it must of necessity be discarded. When the colonies that we had in these hives failed, we did not restock but few of them on that account. I know one bee-keeper who still adheres to them, putting early swarms and prosperity of the bees, before any advantages of box-honey. I know another who expended some $300 in constructing hives. He conceived the superiority of straw to be in the greater warmth afforded, and to obtain the same end with wood, he made them double, enclosing a dead air space between the outer and inner hive. Many others have attempted the same thing. But all these efforts are only partially successful. As soon as bees are enclosed with an air-tight covering, to secure the warmth, the moisture accumulates, and their combs mold, if the weather is moderate, or if very cold, will be covered with frost. If an opening is made to secure upward ventilation to carry off this moisture, a part of the animal heat goes with it, and the gain by the double enclosure is very trifling. The straw hive will absorb moisture as generated, and the upward ventilation may be avoided, and save to the bees the warmth they have generated. The advantage seems to be in the *material*, not the hive or the manner of making it. That the best material is straw, I think is fully shown. Now we want the best form adapted to our use. When there is a demand, there should be a supply. If nothing better turns up than I have, I shall give a description of that some day. I have already got bees into it for a trial this winter.

St. Johnsville, N. Y. M. QUINBY.

For the New England Farmer.

CONCENTRATED MANURES.

MR. EDITOR:—Much has been said and written within the few past years, on the value of concentrated manure, guano, phosphates, &c., and I cannot doubt that in a multitude of cases, the money expended for them has proved a remunerative outlay, yet I strongly suspect that if these highly recommended fertilizers which have been purchased by the farmers of this State, could be traced to their results, we should find, that, like lottery tickets, too many of them have drawn blanks.

My own experiments have helped me in coming to the conclusion, that the same expenditure in collecting materials from our own premises to act as absorbents, and swell the compost heap, would have proved a more profitable investment. Look at it! Take the article of guano; two bags, at 150 pounds each, would cost, delivered, at least ten dollars. These two bags would just about fill a common flour barrel. Now let any industrious farmer expend five dollars in labor with his own help and team in procuring swamp muck,

if within reasonable distance, and five dollars more in collecting brakes and other materials from the pasture, road side or wood lot, and I think he will have a pile by the side of which the barrel of guano will be small in size and in value, and the ten dollars be kept nearer home.

While ammonia is the principal element of value in concentrated manure, manures from the stable and hog-yard contain more of the requisite food for plants; have more bulk and other important qualities for most of our soils, rendering them more pervious, and susceptible of atmospheric influences.

I believe that many kinds of concentrated manure will yet find a permanent place among the farmers as reliable auxiliaries, but they will be like the mint, the anise and the cumin, compared with what he may manufacture on his own premises.

I am about making a compost, and wish some advice from you whether you think it will be strong enough to put half a shovelful in a hill for corn?

I propose to take 100 bushels of swamp muck that was dug last June, 25 bushels of rotten manure, five bushels of hard wood ashes, four bushels of hen manure, and mix them all together and then commence at one side, and shovel back a layer. To this I will add half a barrel of urine and night soil. Then dissolve five pounds of copperas to the barrel of water, and wet it down, and so on through the pile, till I get on five barrels. Will it be necessary to make it under cover? shall I add lime to this compost? will it do any hurt to put sink water and soap-suds into my vault? B. F. CONANT.

Lyme, N. H., 1861.

REMARKS.—Such a compost should be made up a fortnight at least before it is wanted, and should be made very fine. Instead of "half a shovelful," we should think a pint to a quart would be an ample amount. The four bushels of hen manure are nearly equal to as much guano. Try it, however, in various quantities, and let us know the result. It will be best to make it under cover. Lime will not be necessary. Soap-suds in the vault will be good, if the vault is tight.

For the New England Farmer.

HOW TO CURE A SPAVINED HORSE.

I have a fine mare, which, three years ago, became very lame from a bone spavin on the inside of the left hind leg. After pretty hard driving for several days, she became so lame that she was unfit for use. The spavin was very tender, and she rested the foot constantly on the toe when she stood. I took her to the blacksmith and directed him to put on a shoe without any toe cork, and with blunt heel corks two inches long. She immediately travelled much better, and when she stood, rested the foot on the toe and heel corks, thus relieving the contracted cord from the strain to which it had been constantly subjected. In a short time the inflammation and tenderness subsided. The swelling abated, and she travelled very well. She wore off the inside cork faster than the outside one, when she began to be lame again. I then had the shoe reset and the corks made of the same length, and she soon became well. After a few weeks I had the corks shortened a little, and the next time she was shod, a little more, but I still have her wear heel corks an inch or more in length. There is a slight enlargement of the bone where the spavin is seated, but she performs hard service, and is not at all lame. Several of my neighbors have applied the same remedy, with equally good results, and I think that a little thought and observation will satisfy any one that this is the appropriate remedy. The cords attached to the part where the enlargement is seated, become inflamed and contracted, and raise up the heel from the ground. When the horse brings the heel to the ground the cords are strained, and became irritated and inflamed. The long corks keep the heel raised permanently, and thus prevent the cords from being strained, and allow the inflammation to get well. Some enlargement and a slight degree of stiffness may remain, but seldom enough to affect the gait. I consider the discovery of so much importance, that I wish the owners of horses to know it, as I believe that many horses that are now considered of little value may by this simple means be restored to a serviceable condition.

Wilmington, 1861. LEVI REYNOLDS.

EXTRACTS AND REPLIES.

A LARGE HOG.

I recently saw the magnificent porker raised by Hon. R. S. ROGERS, on his farm in South Danvers. I am glad to learn that something besides *onions* can be grown here, as the maggot seems to have put an effectual veto on this delicious vegetable—always saving its smell. This hog was bred in Chester county, and was selected for the superior character of the breed. He was nearly three years old; weight alive, about 1108 pounds, weight when dressed, 1000 pounds. He has been fed with the best the farm afforded, always having as much as he would eat.

I asked Mr. R. as to the *profit* of raising such an animal; he replied that he had not found an opportunity to state the account, the most he cared about him was "to see him grow." I can not doubt that the farmer who thus deposits his corn, will find his account, either in the growth of the animal, or in the manure he makes—if he be a working hog. J. W. P.

March, 1861.

CULTURE OF ROOTS.

I have had but little experience in farming, and would like to ask, through your valuable paper, what I had better plant this spring for roots, to feed to cattle and sheep next winter. Also, if roots are more common than grain?

A NEW SUBSCRIBER.

Romney, N. H., April, 1861.

REMARKS.—Mangolds and flat turnips are cheaply raised, and are excellent for sheep and cattle. Carrots, beets and parsnips may also be produced profitably, if the work of cultivating is chiefly done, as it may be, by horse power.

OATS FOR SHEEP.

A correspondent inquires if oats will injure sheep, and you ask some of your subscribers to answer the question.

I can assure him that they will not, if fed to them properly. It is not safe to give sheep too much grain of any kind when you commence feeding them, but after they are accustomed to eating it there is no danger. I have kept sheep for thirty years, and always fed more or less oats. Have wintered 400 the present winter, and have not fed them any hay until since the middle of March. Their feed has been oats unthrashed, once a day, oat straw once and corn fodder once, and they have done well. My last spring lambs I have fed on hay. H.

Newbury, Vt., 1861.

SHEEP, WITH COLDS OR INFLUENZA.

Will you or some of your correspondents inform me of a cure for sheep that are troubled with a severe cold or influenza? The snow in January and February accumulated in my yard, higher than the floor to my shed, and having a heavy rain and thaw about the middle of February, the water ran into the shed, making it very wet, and nearly all of my sheep took a cold or influenza. Some have nearly recovered—two have died—several others discharge freely from the nose, and lose flesh. The symptoms are a thin, mucous discharge from the nose and eyes. As the disease advances they become dull, eat but little, stagger in walking, grate their teeth and droop their ears. N. B.

Haddam, Vt., March 21, 1861.

REMARKS.—Much cannot be done for the poor animals by administering medicine. A warm drink made of ginger, or something of that kind, may be given, or if the bowels need motion, something to accomplish this may be used. Most that can be done is to furnish them with a warm, dry place, where they can be quiet, and to feed them on warm food, such as a bran mash, oats or cracked corn soaked in hot water, or a little sweet hay soaked in the same manner. We have had considerable experience with sheep, and find that these opinions are sustained by the best books on the subject. We have referred to them, hoping to find something definite to offer, but cannot.

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WHITE PINE SEED.

Will you inform me the best way to seed land with white pine; how much seed per acre, where can it be obtained, &c. Any information in regard to this will be thankfully received.

Auburn, N. H., 1861. CHAS. C. GRANT.

REMARKS.—Will some correspondent having the knowledge impart it to brother Grant through the *Farmer*?

—

OATS AND BEANS.

Oats and beans, two or three parts of the former to one of the latter, ground, make good feed for cows. A neighbor says that beans are a preventive and a remedy for the garget. Farmers, try the above mixture. I will warrant it beneficial.

SOILING COWS.

Will you inform me through your paper how to manage in feeding cows in the barn, in summer? Shall I mow grass for them, or raise some other green crop? If a crop, what kind?

Enfield, Conn., 1861. A SUBSCRIBER.

REMARKS.—There is nothing, in our opinion, equal to good pasture for cows—but as that cannot always be had, we must resort to some other mode of feeding to "help out." This may be done by keeping the cows in the barn every other day, or by feeding them plentifully for two or three hours each morning, and turn them out for air and exercise during the rest of the day. For this purpose, a crop of early clover or oats is good; then follow with millet, and corn sown thickly for the purpose.

—

BEE HIVES.

Will you, or some of your subscribers, favor me through your columns with the information where the bee hive invented by Rev. L. L. Langstroth can be found, and if it is a good one,—if not, whose is the best? A SUBSCRIBER.

Worcester County, April 3, 1861.

REMARKS.—George T. Angell, 46 Washington Street, Boston, will supply you with Langstroth's hive. Mr. R. S. Torrey, of Bangor, Me., has a hive which we also think highly of.

—

VEGETABLE CUTTER.

I saw in the *Farmer* for March an article on root or vegetable cutters; the writer speaks of one which has not been in the market yet, which he thinks is preferable to others on account of its cleansing the roots by a revolving cylinder and separating the dirt from the roots. Now, can the editor or the writer of this article inform me where this machine can be obtained, and at what price. GEORGE PUTNAM.

Andover, April, 1861.

For the New England Farmer.

BEE CULTURE.

MR. EDITOR:—There is one branch of farming which is very much neglected, and which is not only the most interesting and instructive but the most profitable. I refer to the keeping of bees. There is no farmer, however much his time may be occupied, but could attend to an apiary with from two to ten hives of bees, and for his labor, (I will not say labor, for it is only recreation,) he will get from 20 to 40 lbs. of honey from each hive.

The great objection to keeping bees has been, the want of a proper hive to enable one to feed his bees if the season should prove unfavorable, and to so ventilate the hive, that the bees may be kept in a healthy state and the comb free from frost and ice.

These difficulties are completely obviated by a very simple hive invented by R. S. TORREY, of Bangor, Me. His hive is so constructed that a perfect ventilation is kept up, and the apiarian

can know just when his bees require food and can feed them, without at all disturbing them, and have the pleasure of seeing the little industrious creatures load themselves with food and convey it to their cells; it is also so arranged that the moths cannot trouble the hive, and the combs can be removed singly if desired. In fact, it is just such a hive as has long been needed.

I write this for the good of my brother farmers, not having any pecuniary interest in the hive.

There are one or two other subjects which I may drop you a line upon at some future time, if your columns are not too full. Your journal is doing us good. We are living upon old worn-out farms, and it is only by reading agricultural works and periodicals, thinking for ourselves and using the new labor-saving machines, that we can, at the end of the year, make "both ends meet."

Cumberland County, Me. B.

REMARKS.—We have great confidence in Torrey's Hive. During the past winter we have had several swarms, in different hives, all standing upon the same shelf, every one of which excepting Torrey's has suffered more or less from want of proper ventilation, and in two instances all the bees were dead.

For the New England Farmer.

ONE WAY TO PRESERVE MEAT IN WARM WEATHER.

MESSRS. EDITORS:—What is a greater luxury to an old-fashioned business man, occasionally, than a platter of well prepared bacon and eggs? In the premises, I would state, that meat smoked in cold weather, is better than in warm, and that different persons have different ways of pickling and preparing their meat for the smoke-house. When the pickling is accomplished upon any plan, the next thing wanted, is a suitable smoke-house adapted to the quantity of meat to be smoked. As my operations have been upon a small scale, seldom amounting to the curing of the legs and shoulders of more than two hogs, I have used a hogshead of a large size, with one head taken out, then an auger hole bored nigh the crossing of the removed head through the staves in the centre, to admit a stick large enough to sustain the meat which is fastened to the stick with strings, then the removed head returned to its place, for a cover to keep the smoke in; then an iron pan with smoking corn cobs is inserted through a hole previously made at the lower end of the cask for a door; the pan is to rest on the unremoved head covered with sand to prevent its burning, then a tight door fitted to the opening, is applied to hinder a blaze of the cobs and retain the smoke in the cask. A supply of cobs may be introduced two or more times a day, for a week, when probably the meat will be sufficiently smoked for food.

Now for the most important part of the operation. Every person of experience knows how difficult it is to keep bacon sweet through the summer months; flies and other nauseous insects are attracted to it, and deposit their filthy eggs and slimy larva in every available crevice, till the meat is worthless, and more than all that, all animal matter has a tendency to taint and decompose, and bacon is very liable to suffer in that way, unless indurated with salt to such a degree as to render it unpalatable. As smoke is a disinfectant, and a strong antiseptic, all the bacon that is to be kept for summer use I let remain in the smoke-house, and occasionally fumigate it with a pan of smoking cobs, the best preventive of taint as well as repellent of flies, bugs, and other nauseous insects. I have kept bacon, through the summer months, by this process, free from taint and contamination of all insects, "as good as new." I make no pretension to the invention of preserving meat in this way, further than the after smokings, which I have had no knowledge of having been done by any of my acquaintance.

North Wilmington, 1861. SILAS BROWN.

For the New England Farmer.

A GOOD CORN STORY.

MR. EDITOR:—One of your agents called on me last summer, and I showed him a piece of corn where I had used phosphate of lime and plaster paris in the hill, and he wished me to give the result through your paper. My land is a gravelly loam, pitching considerably to the south and east; rather late in the season I carted manure on to the grass, and as soon as I got enough for a day's plowing, I turned it under with a side-hill plow, plowing from eight to twelve inches deep. I put on about twenty-five loads of manure to the acre. After it was all plowed, I took a heavy roller and rolled it all down as smooth as I could, then I harrowed, furrowed, and planted on the top of the sods, using one large spoonful of plaster and phosphate of lime to the hill; hoed three times, and had over 200 bushels good sound corn on about three acres. My corn is of the twelve rowed kind, and very early. I left two rows where I put nothing in the hill; they yielded only two-thirds as much as those right beside that had plaster and lime; the corn was not near as sound and good, worth but very little, if any, more than half as much as that where the plaster and lime were put.

And now about different kinds of corn. I saw in the *Farmer* of March 16, WM. F. BASSETT, of Ashfield, thinks the King Philip corn the best. I have had thirty years' experience in raising corn for myself, and am satisfied that the twelve rowed corn that I have raised during that time, will yield from five to ten bushels of corn more per acre than any eight rowed kind in this vicinity, and is two or three weeks earlier at least, and the meal is worth several cents the bushel more than the King Philip, or Brown corn. I planted some of the King Philip the past season, spread manure and plowed in, and manured in the hill with summer manure. It was planted three or four weeks earlier than the twelve rowed, and was not ripe so soon by eight or ten days, and did not yield more than three-quarters as much. I shelled some of the twelve rowed and some of the King Philip, and gave to my fowls together, and they would take all the twelve rowed first. Within the last thirty years I have tried several kinds of eight rowed corn, that were very highly recommended, but never have found any that would yield as much, or was as early as the twelve rowed kind. L. C. FRENCH, 2D.

Bedford, N. H., April, 1861.

USE OF BONES AS A FERTILIZER.

We recently published an inquiry in relation to the use of bones; since which we have found the following reply to a similar inquiry, in the last number of the *Mark-Lane Express,* which we copy in the belief that it will be perused with interest by all our reflecting readers:

A correspondent asks for some information respecting bone manure. This is universally considered one of the best kinds of manure that can be applied to the land, whether for corn, grass or root crops, and its extensive and increasing use is a proof of the estimation in which it is held. Not only are the bones of those animals slaughtered in this country employed as manure, but nearly 80,000 tons per annum are imported from foreign countries, chiefly for the same purpose, and yet the supply is by no means equal to the demand. Had not the importation of guano commenced about the year 1840, it is probable that bones would have risen to £10 or £12 per ton.

"That bones must be beneficial as manure," says Mr. Nesbit in his pamphlet on Agricultural Chemistry, "will appear from a very simple consideration. Animals are fed upon vegetables, and the whole of their bodily structure grows out of the food, or is eliminated and formed from it. If the food did not contain phosphate of lime, the bony structure of the body could not be built up. If the soil in which vegetables grow did not contain phosphate of lime, the seeds of vegetables could not be matured. Supposing the arable land of this country to have been robbed for a thousand years of phosphate of lime, and never to have received any back again; assuming this ingredient to have been continually exported in the shape of milk, cheese, sheep and oxen, it is clear that unless the land had an unlimited amount of phosphate, which we know is not the case, there must have been a proportionate diminution in the quantity of such materials. Hence it is that when certain substances which had been taken out for a long period, have been again suddenly applied, land worth hardly 5s. per acre has sprung up to the value of 15s., and there has been an enormous increase of crops."

One of the most valuable qualities of bones is the slowness with which they decompose, and the length of time during which they continue to give out the phosphates. It is found upon analysis that one pound of bones contains as much phosphoric acid as 28 pounds of wheat, or 250 pounds of potatoes. Now, a crop of wheat of four quarters per acre, and reckoning it at 60 lbs. per bushel, weighs, in round numbers, 2000 lbs., which contains only as much phosphate as is found in 71 lbs. of bones. It is clear, therefore, that if the bones are put on at the rate of 3½ cwt. per acre, supposing them to decompose rapidly and give out the phosphates in proportion, a large proportion would be wasted. But that this is not the case, the following circumstances prove: A gentleman, who occupied a large farm in Norfolk, finding towards the close of his wheat-sowing, that he was likely to have a considerable quantity of bone-dust left, if he continued distributing it at the ordinary rate, directed his foreman to increase the quantity. On going to the field the following day, he found that the man had *doubled* the allowance, and that instead of having any to spare, he would not, at that rate, have enough to finish manuring the remaining seeding land. He therefore told him to go back to the usual quantity of about 4 cwt. per acre, at which rate the field was finished. The crop of wheat proved a very heavy one, as well as the succeeding crop of turnips, on that part of the land which was thus double dosed with bone dust. Now mark what follows. *Eleven years after,* the farmer on riding with a friend over his land, came to this field, which was again, for the third time after the above occurrence, under wheat. On entering it, he requested his friend, if he should, in riding down the furrow, find any difference in the growth of the wheat, to point it out. After riding a few yards into the wheat he suddenly stopped. "What in all the world have you been after here?" he exclaimed. "This wheat is six inches higher, and as stout again as the rest; how came this to pass?" The farmer then explained to him the occurrence we have related, and which proves not only the value of bones as a manure for a single crop, but that by the deliberate manner in which they give out the phosphates in decomposition, they possess a more permanent value than any other kind of manure.—*Country Gentleman.*

For the New England Farmer.

TWELVE-ROWED vs. EIGHT-ROWED CORN.

MR. EDITOR:—In a late number of your paper I find some remark of "A Farmer and Miller" in relation to eight-rowed corn being preferable to twelve-rowed, on account of drying better, and its greater value as fodder. I beg leave to say that I defy the world to produce a better variety of corn than I raise, heavier, finer fodder, or that produces better on common upland, or, in fact, earlier than this twelve-rowed corn. Hence it follows that the number of rows in a variety of corn has nothing to do with the real merit of that variety.

There are many things highly recommended in the public prints that will not answer for every latitude and locality. A neighbor of mine raises the far-famed King Philip corn with no success at all. Though recommended for being early, it is altogether too late for this county. This, and an eight-rowed sort, is bound to mould at all events. The Lawton blackberry will not stand our winters, and notwithstanding the high encomiums lavished upon it, it is worthless in this climate.

In reply to a suggestion made some weeks since through your paper, about distributing corn in the hill, I will say that I use one of Dana's hand planters, which chucks it in about two inches deep at one stroke. This machine leaves the corn in a line four inches long in each hill. As the corn grows it, diverges sufficiently to give it plenty of room. In this way it is much less work to hoe it, and in my humble opinion the corn is evener and produces a better crop than when it is distributed in a square of eight or ten inches about the hill. THOMAS S. FLETCHER.

Reading, Windsor Co., Vt., April 8, 1861.

A punctual man can always find leisure, a negligent one never.

THE RED ASTRACHAN APPLE.

We have not cultivated this delicious apple, and therefore prefer to give the reader an account of it given by Downing, in his Fruits and Fruit Trees of America.

A fruit of extraordinary beauty, first imported into England with the White Astrachan, from Sweden, in 1816. It bears abundantly with us, and its singular richness of color is heightened by an exquisite bloom on the surface of the fruit, like that of a plum. It is one of the handsomest dessert fruits, and its quality is good, but if not taken from the tree as soon as ripe, it is liable to become mealy. Ripens from the last of July to the middle of August.

Fruit pretty large, rather above the middle size, and very smooth and fair, roundish, a little narrowed towards the eye. Skin almost entirely covered with deep crimson, with sometimes a little greenish yellow in the shade, and occasionally a little russet near the stalk, and covered with a pale white bloom. Stalk rather short and deeply inserted. Calyx set in a slight basin, which is sometimes a little irregular. Flesh quite white, crisp, moderately juicy, with an agreeable, rich, acid flavor.

A "SCARE CROW."—The following is said to be a remedy against the depredations of the crow and blackbird, in the cornfield:—Take fine plump seed corn—a quantity of it—string each kernel on a horse hair—white is best—tying a knot in it to prevent its slipping off. Scatter it over the field in spots where the birds will see it and alight. They will eat but one kernel of it, and will not trouble that field (or any other) again. The two ends of a horse hair sticking out of their mouths well anchored in their craws by a fine kernel of corn, is by no means a pleasure to them.

A BAD CUSTOM.—In no pursuit or profession, is there required so great an exercise of judgment, experience, observation, and of science also, as in the proper treatment of the great variety of soils with which the cultivator has to deal. The rule *is;* make professional men of your smart boys—leave the dolts to till the soil. It *should be;* devote the best talent to the cultivation of the soil where the highest degree of judgment and skill is required; and let the lower grades of intellect be sent into the routine of professional life.—*Amer. Agriculturist.*

WHAT a glorious world this would be if all its inhabitants could say, with Shakspeare's shepherd: "Sir, I am a true laborer; I earn that I wear; owe no man hate; envy no man's happiness; glad of other men's good; content with my farm."

CRANBERRY CULTURE---No. 2.

Preparation of Soils for the Plants.—In this operation, there is little unanimity of opinion, or practice. If it is desired to reclaim a swamp, select one upon which water may be thrown at will, and a good method is to flow it for an entire year, as the brush at the end of that time will usually be dead. Then draw off the water, cut the bushes and hassocks, and in a dry time burn the whole over. If thorough work is to be made of it—and that is by far the most profitable process—pull up the roots, take out stumps, fill holes, and level, so as to make the surface easy to work upon. While this has been going on, a dam should be constructed of sufficient capacity to flush water over the whole surface in a short time, and then the field is ready for the plants. These should be selected—

1. From *bearing* vines, as some of them, like the grape and strawberry, are barren.
2. From *prolific* plants—plants that you have *seen* with your own eyes, full of fruit from year to year.
3. From *healthy* vines—those that are young, of a dark green color in the autumn, before they are entirely ripened or touched by frost, and that show no signs of blight or mildew, and have not been infested by worms.
4. Select one of the three varieties mentioned, or, on a portion of the plantation, mix them with each other.

The vines being selected and brought to the field in large quantities, one person should make a suitable hole with a hoe, and another follow with his barrow of plants, set them in the ground, with or without roots, scrape the moist soil over them and tread down with his foot. It matters little whether one inch of the plant, or six is left out of the ground, provided two or three, or more inches are underneath.

The closer they are set together, the sooner will the ground be covered, the plants take possession of the whole surface, and keep out all intruders, such as meadow grass, bushes and brakes. If we were now to begin a plantation, we would set them within one foot of each other, or if plants were plenty, only *six inches* apart.

In order to acquire all the information possible respecting this fruit, we addressed several questions to persons interested in its culture in various parts of this and some other States. On this point of planting, a gentleman in New Hampshire writes:

"I set the plants three, or three and a half feet apart, but if I were to set again, I would set three times as thick—they will cover the ground so much sooner, and stifle the grass and weeds better. I made holes with a small stick in the soft soil and stuck in a wisp of vines about as large as my finger; sometimes they had roots, and sometimes none. Out of 16,000 hills, I did not see one that died. But my soil was very moist. They grew finely, and I had a few berries the first year. The third year I picked twenty-five bushels. The fourth year there were sixty bushels. I sell them for three dollars a bushel at the house. My vines will bear now from one to two hundred bushels a year, according to the season. They were set at the rate of 1000 hills a day for one man."

These 16,000 hills were made on four acres, seven years ago, at the rate of 4000 hills per acre.

Swamp lands, however, sometimes produce good crops of cranberries without so much expenditure of labor in clearing. When the bushes are killed by flowing, or cut off, with the grass, weeds and brakes, the vines are set at once, and, if other things are favorable, a fine plantation is produced.

Another mode of obtaining a cranberry plantation, or yard, as they call them on the Cape, is to employ our common fresh meadows, that are annually covered with grass and mowed. When this is done, Mr. Hunt, whom we have already quoted, says, "I would turn the turf bottom side up, which may be done with hoes for about twenty dollars per acre."

In regard to employing grass land, a friend who visited some of the best cultivators on the Cape, on purpose to learn their modes of practice, writes us as follows:

"Another experiment I regarded as very successful, viz.: planting among grass more than two feet high. A man with a stout hoe turned up the sod, put in a *bunch* of vines (not a *sod* of vines) turned the sod back and stamped it down upon them. This was all that was done in planting. They were set four years ago, six feet apart, and have now nearly exterminated the grass and covered the ground. We estimated the crop this season to produce one and one-half bushels per rod. The application of sand has had no beneficial results."

Another plat of small extent had the grass subdued, and was *sown* over with vines cut as fine as a hay-cutter would cut them. These had grown but one season, but looked well, and satisfied me that this mode of planting may succeed. They will, however, require a much longer time to come into bearing. Still another piece was commenced in 1850, on twenty rods, or one-eighth of an acre, by taking off the grass, and gravelling over previous to planting. There were very few berries the first two years, but the eight succeeding years have netted him $150 annually, although in one of these years he lost the entire crop by frost. This is at the rate of one thousand and

two hundred dollars a year, per acre, for eight years in succession on twenty rods of land! On the same piece, the owner had a single rod of the best he could find, selected and surveyed, and the fruit gathered and measured in the presence of several of his neighbors, and the product was found to be a little over *seven* bushels of fine fruit —being at the rate of eleven hundred and twenty bushels per acre, which, at the same price that our New Hampshire friend gets at his house, three dollars, would be the handsome sum of $3,360 per acre! A gentleman who saw this "yard" last fall writes us that he thought the whole piece would yield more than a barrel to the rod.

For the New England Farmer.

CULTURE OF FRUITS ON FARMS.

The culture of orchards of good apples is one of the best modes of making farming profitable. Marked instances of this culture have come within my observation, in the county of Essex, during my acquaintance with the farming of the county. I recollect a field of seven acres, situate on an elevated swell of land, facing to the south and east, enclosed with a stone wall substantially made to the height of six feet, mainly for the purpose of getting rid of the stones that were in the way, in converting the pasture to a field. Around this field, about six feet from the wall, and about two rods apart, were set Baldwin apple trees to the number of fifty. A few years since, these trees averaged six barrels of merchantable apples to a tree. These apples yielded a net profit of five dollars a barrel, over and above the expense of conveying them to a market in England. Here then was a net profit of two hundred and fifty dollars from the fruit alone, on this field, leaving the crop of grass in no manner diminished by the growth of the fruit. I said these trees were set near a high wall, and I doubt not their growth was facilitated, and their products increased, by being thus situated.

Early in life, I was told by my father, that one tree set in the vicinity of a stone wall, or by a large boulder, was worth double a tree left exposed in the open fields. Why it is so, I must leave to those who understand the philosophy of vegetable growth to explain. I suspect there may be a disintegration of the rock, that is taken up by the rootlets of the tree, that is favorable to the growth of fruit. I have always noticed that the soil near a wall, or large stones, is richer and more easily cultivated than that which is in the open field. I have spoken only of the culture of apples, the fruit most common on our farms, and when considered in all their relations, they will be found the most valuable branch of fruit culture to farmers. Good fruit will ever find a ready sale in the market, even though there should be no occasion to make cider from it, but the time has not yet arrived when cider, well refined, will not find an abundance of customers, and probably never will, so long as the appetite of man hankers after a pleasant and salutary beverage. That too much cider taken into the stomach will stupify the brain, will not be denied, and so too much water will overload the stomach. But shall men forever be precluded the taste of good cider and pure water, because occasionally the use of it has been abused? By the same process of reasoning may we deprive ourselves of all the luxuries produced from the field or the garden.

South Danvers, 1861. J. W. P.

For the New England Farmer.

THE WHEAT CULTURE.

I am glad to notice of late, in the *Farmer*, and other agricultural journals, an increased attention to the culture of wheat. I have long been impressed with the idea that the almost total abandonment of this crop in New England is a mistake—if not even "worse than a crime, a *blunder*." Up to about the year 1825, wheat was the great article of export from Vermont, western Massachusetts, and portions of other N. E. States; but with the advent of sheep raising, came a gradual abandonment of that which makes the "staff of life." New England does not now raise one-eighth, or perhaps even one-tenth, of the wheat necessary for its own consumption. I think this need not be, and ought not to be. I know that the wheat crop is, to a great extent, an uncertain one. It probably fails three times where the corn crop fails once. This is the case even on the great wheat-growing prairies of the West. But it is an indispensable article of food—more so than any other crop—and should therefore receive special attention and encouragement.

I suppose that, if any one fact of chemistry, as applied to agriculture, is settled and established, it is, that the growth of wheat requires a large proportion of the phosphates in the soil. This is particularly true in regard to phosphate of lime. We find, therefore, that even in western New York, and other limestone regions, there has been a gradual falling off in the yield of wheat. The same must occur in all the great wheat-growing regions of the West, as fast as this peculiar property of the soil becomes exhausted. It follows, therefore, that wheat-growing must finally fail everywhere, unless some means be devised for restoring those properties of the soil which frequent croppings of wheat may have destroyed. And as the great element thus used up is clearly phosphate of lime, the renewal of that element in some form would seem to be indispensable. The best form, undoubtedly, if within the reach of the farmer, is ground or pulverized bone; but as that is not procurable to an extent sufficient to restore "the lost art" of wheat-growing to the whole of New England, I would recommend that farmers should experiment on a small scale, perhaps, at first, with the phosphates advertised at the agricultural warehouses—say Coe's superphosphate. It is important to know, first, whether that article will enable our old lands to produce wheat, and secondly, how long one application of it will last.

It is well known that spring wheat will grow and produce well, the season being favorable, on land manured from the stable—say with about half as much manure as is necessary, broad-cast, to produce a good corn crop. But there are objections to spring wheat. It does not yield nearly so large an amount, per acre, as winter wheat,

and it is much poorer in quality. But it is a great deal better than none; and as it is not subject to winter-killing—one of the worst mischances of winter wheat—it may well be considered the safest crop.

Farmers frequently attempt a substitute for wheat by plowing up a poor pasture and sowing it to rye. They obtain perhaps from ten to fifteen bushels per acre—about half a good wheat crop, and attended with nearly the same amount of labor—and after living on rye bread for a month or two in the fall, are glad to sell the remainder of the crop and purchase wheaten flour. In my judgment, the culture of rye, except on some soils specifically adapted to it, is poor economy. I well recollect that, during the fall of 1816, when the corn crop was cut off in all the northern States, my father undertook to fatten his hogs upon rye; and he got about the same result that a certain unpopular personage is reputed to have attained in shearing the pig; he got "great cry" and very little pork. In whatever form he fed them the rye, the hogs invariably called for more, and refused to grow fat under any dispensation of it. Since that period I have looked upon rye as just about the last crop I would recommend the farmer to attempt the cultivation of.

I have heard it remarked by old farmers, in wheat-growing times, that wheat would do well on all soils that would produce herds-grass. Now as I have found by experiment that swamp muck, on dry or gravelly land is one of the best fertilizers for herds grass, would it not be well to try it for a wheat crop. Unfortunately, perhaps, I do not possess a farm, and therefore cannot experiment for the benefit of myself or others; but if it should prove true that muck is a fertilizer for wheat, no one more important fact in agriculture could be developed.

I know it is fashionable for farmers to say they can purchase flour cheaper than they can produce wheat. I believe one of your correspondents has written a book to prove that all kinds of farm products cost more than they come to. This kind of arithmetic is mischievous. The thrifty farmer will strive to produce, as far as possible, all that is necessary for his own living. Least of all should he be dependent upon others for his *bread*. The cotton-planter at the south, who can raise corn for eight cents a bushel, and still buys it at fifty cents to feed his slaves on, is not more out of love with true economy, than the New England farmer who tries to convince himself that it is easier to *purchase* his bread than to *produce* it.

Somerville, April, 1861. E. C. P.

WHAT IS LAWFUL SOUNDNESS OF A HORSE.—In reply to this question by a correspondent, the *American Stock Journal* publishes the following:

On consulting "Oliphant," on the law of horses, you will see that he defines "soundness" as follows: We may define a horse to be sound when he is free from hereditary disease, is in the possession of his natural and constitutional health, and has as much bodily perfection as is consistent with his natural formation."

Another definition of "soundness."—That horse is sound in which there is no defect nor disease, that shall impair his present or future usefulness.

A third definition of "soundness."—That horse is sound that is perfect in structure and function.

According to the above definitions of "soundness," it would be a matter of impossibility to find a sound horse; therefore I advise you not to warrant the animal which you suppose has a corn.

For the New England Farmer.

SOME CHOICE APPLES.

The apples mentioned below, among others which I have under cultivation, are comparatively new in this region, and deserve general attention.

RED ASTRACHAN.—This foreign apple is one of the most prominent of the early varieties; is large, peculiarly handsome, and in appearance will rival the Williams. It is a little earlier than the last named, though not so fine for the table, though more juicy, yet acid. For mid-August, however, this is no great fault. Its growth is exceedingly vigorous, its leaves very large, and its fruit being showy, it makes the handsomest tree of the garden. It is also an early bearer. Its fault is that, bearing in clusters—its tartness and tenderness assisting—it rots on the tree badly, and is less transient than the Williams. It is, however, very valuable.

GARDEN ROYAL.—A medium-sized fruit, ripe in September, colored like the Hubbardston Nonsuch, very tender and juicy, and of a mild, pleasant flavor. The fruit has some peculiarities. It is uniformly fair, and specimens direct from the tree that might be regarded in good eating order, will greatly improve by being kept a week or fortnight, as they become more juicy rather than dry, and are little disposed to rot. The tree is a handsome, very upright and compact, though slender grower, and bears young and abundantly. The fruit is eagerly bought by dealers who are acquainted with it.

GRAVENSTEIN.—This apple, a little later than the Garden Royal—has never been over praised. It is far superior to the Porter, and must necessarily supplant that heretofore popular variety, as no one would cultivate the latter, if acquainted with the former. It is larger, handsomer, and of much finer quality. Besides, it is a good grower, making a spreading head, and bears early. There can be no doubt of its being the most valuable of all the early autumn apples. The rind is thick and oily, emitting a fine aroma, and it is a splendid market apple. It will keep over two months, and I have seen specimens of it in January.

GRANITE BEAUTY.—A large winter variety from New Hampshire, of great promise. Inclining to oblong, greenish-yellow ground, with numerous dark, dull stripes; light texture, pleasant sub-acid, and very juicy. A strong, spreading grower, and grafts which I procured of Mr. Breed, of Weare, N. H., four years ago, show indications of a good crop this season, on a stock ten years old. This apple, among cultivators, is receiving a good share of attention.

TOMPKINS COUNTY KING.—An apple lately introduced from New York State. It is a winter fruit, larger than and colored similarly to the Baldwin, and though a little superior in flavor, will

not keep so well. An early and good bearer, it is said, though not yet fruited at the East.

RED RUSSET is a New Hampshire apple, and from its firmness and good-keeping qualities, must be very valuable, especially as a market fruit. It is a perfect cross between the Baldwin and Roxbury Russet, partaking of both in appearance and flavor, and about the size of the former. The late Mr. Cole, who was instrumental in introducing it, stated, from experiments, that it would keep better than the Roxbury Russet, and was superior in every respect. A very substantial, rich-looking apple, hardy, a good grower and bearer, and probably destined to supply a want much needed.

HUNT RUSSET, though not a new variety, is not so well known as the Roxbury Russet, though well deserving to be. Some suppose it to be the Golden Russet, which I regard as inferior, appears never to grow so large, nor has it so rich a russet hue. Some cultivators have wondered how others could raise such large Golden Russets. Probably they were the Hunt—which, (more tender and smaller than the Red Russet) from its white melting pulp, late-keeping qualities, &c., must maintain an important position among the spring apples of New England. D. W. L.

West Medford, April, 1861.

For the New England Farmer.

ADVANTAGES OF DRAINING.

MR. EDITOR:—It seems to me to be a suitable time to bring up the subject of underdraining our farming lands. It is doing a kindness to laborers to find work for them, when there are so many glad of employment. Ditches for tile drains can be made now, at but little more than one-half the cost of making them in the autumn, as the soil is much easier to dig, labor easier to obtain, and the work of the farm not so much interfered with.

From considerable experience in draining my own land for several years past, and from the favorable testimony of many farmers in this vicinity who have tried the same upon their own farms, I am convinced that there is no investment we can make that will bring more satisfaction to us than this. The advantages vary, of course, in different soils and situations, but almost every farm has some land that will be benefited by underdraining. I know there are some persons who discourage farmers from underdraining their lands; but I have yet to learn that any of these persons have ever given it a fair trial, on their own lands, or have had any practical experience of the subject.

I am acquainted with a young man who left the city of New York, several years ago, and took a farm in the westerly part of that State, and commenced a system of underdraining with tile, until he has been over a farm of 300 or 400 acres, laying more than sixty miles in length of drains, and increasing his wheat crop from fifteen to twenty-five bushels per acre, and other crops in proportion, and receiving a medal for the best cultivated farm in the county. His land was elevated land; what we should call at first sight, dry land, not needing drainage, but still a clay subsoil, retentive of moisture, and, without draining, cold and late for vegetation in early spring.

Now we have, in the vicinity of Boston, a great proportion of similar land, which, if properly underdrained, will make the very best land for cultivation of any land that we have. Let but the experiment be tried, and the result will be satisfactory; vastly more than almost any one, unacquainted with such experiments, would imagine. I do not wish to have it inferred that underdraining alone is sufficient to produce great crops, but that with thorough underdraining, manuring and loosening of the soil to a good depth, we may be sure of a great crop, let the season be unusually wet, or unusually dry, very early, or very late; and without underdraining such land as I have referred to, we cannot depend, with any certainty, upon even an ordinary crop.

I have found a great advantage from underdraining, from its removal of stagnant water, from the low, springy land near my dwelling, thereby removing the great nuisance of mosquitos in warm weather, and also, in a great measure, the cold, damp air of the evening. When, in addition to these advantages, I have seen land formerly covered with hassocks, and the coarse water grass, yielding the best and earliest crops of the season, rivalling any that are reported as the best crops of the fertile west, then I feel how much better it would be, if the money now expended by the State upon agricultural societies and boards of agriculture, was judiciously expended in the encouragement of underdraining the wet lands of Massachusetts.

I know there are some who still insist upon using stones for underdraining, instead of tile; and some, even, who advocate plowing wet land, into "beds," with open ditches between, and no underdrains. From more than thirty years' experience in both these methods, I am satisfied that draining with stone involves more expense of labor, under almost any circumstances, and is not so much to be depended upon; while the "beds" are very good for the plants to sleep in, but not to grow in, in comparison with underdraining.

The usual expense to a farmer of underdraining, beside his own labor, is about thirty dollars to the acre, while the advantage to the crop the first year more than averages that amount.

I think the reason that light, mellow soils are usually preferred for vegetables, is, that they drain themselves, and are always easily worked, while the tenacious clay soils, if they are thoroughly underdrained, and well subsoiled, will prove to be more certain of large crops, with an equal quantity of manure. As a proof that this theory holds good in its application to the "nursery" of trees and shrubs, the remarkable success of Mr. WILSON, of Malden, in growing in an underdrained clay soil the handsomest specimens of pear stocks to be found in any nursery, will abundantly testify.

In the fall of 1858, a field of two and a half acres of land in North Chelsea, was underdrained with tile about four feet deep. The field had been in grass, under the "bed" system, with open ditches, with no very satisfactory result. These open ditches happening to be about twenty-five feet apart, they were adopted as the lines for the tile drains. In the summer of 1859, a remarkably large crop of cabbages was taken from the field, a separate account of which was not preserved. In 1860 the field was planted with Jack-

son White potatoes, dropt in drills three feet apart, and covered with the plow. They were hoed but once during the season. In July and September, 915 bushels of very handsome potatoes, were sold from this field, (equal to 366 bushels to the acre) beside 150 bushels of small potatoes; and later in the season, $100 was received for celery, grown on a part of the same field. Most of this land, before underdraining, was too wet to plant; it was a favorite resort for musquash, and they have been unwilling to abandon their old haunts. After going through the tile in the main drain, and attempting ineffectually to reconstruct their dams, they have deserted the field, apparently with a great contempt for drain tile.

For the New England Farmer.

THE SLAB---CARROT CULTURE.

MR. BROWN:—I noticed in a late number of the *Farmer*, a recommendation of the "Slab" as an article with which to cover the seed, and put the finishing polish on ground recently laid down for meadow; also, that the suggestion pleased you, as well it might. You have in this contrivance a true delineation of the true Yankee character. He never despises a thing because it is simple, cheap or common. Every thing, in his view, is fitted for some good use. You have heard of the good housewife who was furnished with very crooked wood, to try her patience, on a bet that it would make her scold. Instead of scolding, she begged for more of the same sort, because, said she, "it fits so nicely around the dinner-pot." She found that which most would have thrown away, best fitted for her use.

But, sir, I took the pen to tell you that the slab has other uses. In a kind of official ramble, last fall, among the crops of members of the Berkshire Agricultural Society, we examined a large field of carrots entered by C. O. Perkins, Esq., of Becket. In speaking of his mode of culture, he said that the ground being on a northern declivity, and a little cold and wet, he put the seed on a moderately raised ridge. But how, we asked, is this ridge preserved, and this true and thorough tillage between the rows secured without an amount of hand labor inconsistent with economy in a region where land is cheap, and labor comparatively dear; for we had already discovered that cost and value were two gentlemen with whom Mr. P. was thoroughly acquainted, and who were kept by him in very close relationship to each other. He answered, "I selected a slab of just the right width and convexity, some three feet long, (I write from recollection,) draw from the flat side a few cents' worth of large cut nails, sufficiently long to reach through far enough to scratch thoroughly; cut the lower edge of one end so that it would not catch; fastened a rope to that end; put the rope in the hand of a boy and set him in motion. I found it did the work most admirably."

Now, Sir, here was a cultivator, which, perhaps, in work and materials, cost a shilling, and which was just the thing for the work required. The Yankee always saves the pieces. In his hand they "come in play," at some time; the slab and the crooked sticks as oft as straight ones.

Pittsfield, April, 1861. STEPHEN REED.

For the New England Farmer.

SWEET GERMAN TURNIP.

Among the many "good, bad and indifferent" varieties of turnips that are cultivated in this section, we have one that I think is far superior to any I have yet seen. It was sent into this place a few years since from Canada, I think, by the name of "Sweet Turnip." I have since learned that it came originally from Germany; therefore, I have given it the name of "*Sweet German Turnip.*" I have taken some pains to distribute the seed, and as far as I know, they give universal satisfaction. Those who have them, discard all other kinds, especially for the table, as they have not that strong "turnipy" taste peculiar to other varieties, being sweet and tender. I will venture the assertion, that they will keep sound and tender the longest of any turnip known; they will keep perfectly until July, without any protection whatever, more than to lie on the bottom of a cool cellar. By being packed in dirt or sand, they can easily be kept until new turnips come in; in fact, I have never yet seen a "corky" "Sweet German Turnip." By exposure to the air they will wither, and eventually dry up, but they never become "corky," like other varieties.

They yield about the same as the ruta baga, and should be cultivated in about the same manner. My method of cultivating them as a field crop, was as follows: I selected a piece of land that was highly manured the year before with barnyard manure, and planted with corn; soil, a gravelly loam; plowed about the 15th of June, and sowed in drills far enough apart for the cultivator to pass between them; at the second hoeing thinned to 12 or 14 inches. I used no "fertilizer" except a light top-dressing of plaster when they first came up. About the 1st of November I harvested them. They were the most beautiful lot of turnips I ever saw; yielded at the rate of 900 bushels per acre. I once sent a quantity of the seed to Mr. F. A. Stow, of Troy, N. Y., who has since written as follows: "From the Sweet German Turnip seed that you sent me last spring (sown on five acres,) I raised 4,000 bushels of turnips. I consider them a fine article, and wish you to send me four pounds of seed for next year."

I enclose you a letter that I received from Hon. Levi Bartlett, of Warner, N. H. Such testimony from such a source speaks more than I can write.

I have sent at different times 250 pounds of the seed of this turnip to the Patent Office for free distribution. I have still a large quantity on hand, and will send a package *free to any address*, on receipt of a few stamps to pay return postage, and trouble and cost of putting up and mailing. I make this offer from desire to have it more extensively cultivated. EDWARD L. COY.

West Hebron, Washington, N. Y.

Mr. Bartlett's letter, alluded to above, is as follows:

MR. COY:—*Sir:*—In the spring of 1857 you forwarded to me a package of Sweet German turnip seed. They were sown at the same time, (June 12,) side by side with several varieties of Swedish turnips, viz.: Ashcroft's and Rivers, Swedish Stubble, and Skirving's do. The two first named are very fine varieties, being yellow fleshed, and very good for table use; but we very

much prefer yours for the table, the flesh of which is as white as the "snow that by the northern blast has been twice bolted o'er." I think this variety might be freely fed to milch cows without imparting the "turnipy" taste to the milk and butter that the Swedish and other turnips do. I believe they possess the keeping quality in an eminent degree, for I planted out last spring eight or ten nice bulbs for seed, and they scarcely exhibited any signs of vegetating, and I think they would have cooked well in September. I grew them again the past season, and can cheerfully recommend them to all who wish to procure a "number one" turnip for family use and for the market.

LEVI BARTLETT.

Warner, N. H., Jan. 15, 1859.

For the New England Farmer.

OVERLOADING AND OVERWORKING HORSES.

The unmerciful use of the whip upon the noble horse in our streets ever pains the ear and the heart of the generality of such persons as may be cognizant of the act. Though the animal may be refractory at the time, still the spectacle, or resounding of the lash excites our pity for his sufferings. The driver, that regards the public sentiment and feeling in this respect, will use the whip lightly and sparingly. But, if he inflicts pain upon the public heart, by his unmerciful applications of this instrument of animal torture and punishment, he will reap, as he will merit, ever, the full reward of a general dislike. The act is inhuman and vulgar, and it bespeaks our humanity and progress in civilization, that we have an enactment upon our statute book for the prevention of this barbarity.

The whip is an unnecessary instrument for the correction of the most vicious horse. Intractability is unnatural to this animal. God created him with a tractable and a docile disposition. He was made, evidently, for man's domestic use and purpose, and was most wisely and admirably adapted in his creation, to the most perfect fulfilment of that design, by his peculiar trait of obedience. He becomes attached to the kind master, and delights to obey his commands and to do his will. He becomes vicious and unkind from the effect of abuse and mismanagement of him, by his master.

Horses are often whipped because they cannot draw loads to which some indiscreet persons have attached them, or cannot haul them as readily and speedily as they could suitable sized ones. And they are whipped to make them travel speedily, after they have been travelling so long as to become fatigued. In such cases, every blow of the whip is an injury to the horse; in the one case it increases his fatigue the more: in the other, it causes him to strain and stiffen himself. The strained and overtaxed muscles and joints become stiffened and weakened. The value of the horse for use, and for the market, becomes thus more or less diminished. If we want quick motioned teams and free travellers, we must not strain and fatigue them unnecessarily. It is better to go twice with a given quantity of freight, than to injure a horse or team, by overloading, more in value, by this excess of loading, than is gained thereby. Whenever there is too much loading for a team to draw easily, another horse should be immediately added, or some of the freight taken off. But if neither is done, the team should be favored, by allowing it to move slowly, and to rest often. It is better to let a fatigued horse move more slowly, or to put him up to rest, rather than whip him to renewed exertions to greater fatigue and wear of life.

By the abuse of the horse, we injure his present value, and deteriorate the stock, or species. Some teamsters boast of the instances of great exhibitions of strength, by their teams. But such boastings are not guaranties of their soundness and value. They are not any better for such instances of their displays of strength, but are rather more frequently worse.

We have no law against the abuse of horses. I would that it could be prevented, somehow. Were public sentiment or feeling as much against it, as against the use of the whip, it would diminish. But this is a still injury; it does not always resound with the lash, that is, every overloaded team or horse is not, as a matter of course, punished with the whip. We pass and repass, frequently, horses staggering under an oppressive load. We often pass horses and teams injriously straining themselves in the transporting of great loads, and take no thought, as we should, of their sufferings and injuries.

Such abuse of the noble animal is most unwise, uneconomical and unmerciful, uncivilized and unchristian, and let us cease forthwith and forever.

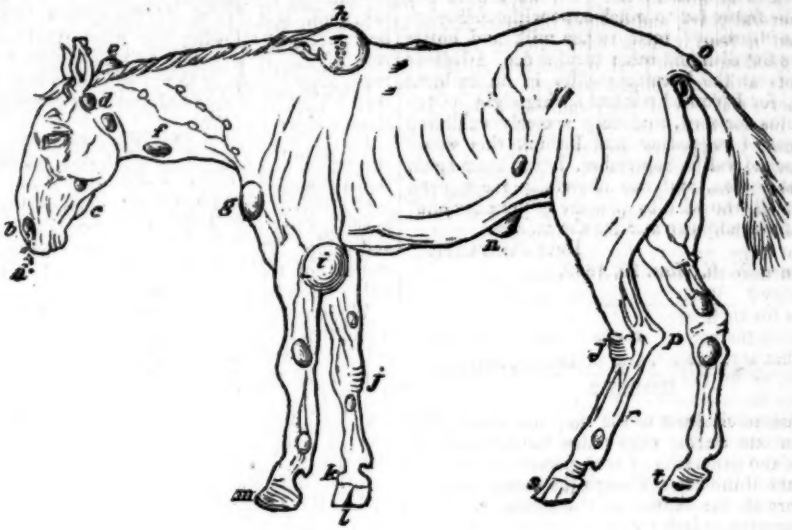
G. O. B.

For the New England Farmer.

THE CULTIVATION OF WILD FLOWERS.

I cultivate many choice shrubs and flowers, but never had any one of them yield me so much pleasure as a bed of the common, blue, white and yellow violet. Two years ago, I was out in the field, when I came across a large patch of violets, I thought I would return, and transplant them. The next spring I had forgotten about them, when I was surprised to see them coming up so vigorously; they were in a warm south situation, and bloomed very early, they were three times as large, and long stemmed enough for bouquets. The leaves were very much enlarged. Several of my friends made the inquiry what are they? I plant them in large patches; since then I have transplanted the white snake violet and yellow, favorably; the white prefers a very wet situation, also the common wild lupin and the red lobelia or cardinal flower; these are in the reach of all, the poor can have them, those that love flowers. Perhaps you might suggest, in some of your articles, the plan of transplanting some of our beautiful wild flowers. I also take the *Gardener's Monthly* and my father takes your *Weekly*. Can the barberry be budded with the white rose? and will it be yellow? Is there any remedy for the small red aphis? Can you describe the processes of budding roses? I would like to experiment on some double blush roses. About the wild flowers; could not you write an article on them the first of April, as I think they would be very acceptable to many of your readers.

Abington, 1861. EVELYN S. DOANE.



AN ABUSED, OLD, SICK HORSE.

The above striking illustration of a long-suffering and abused horse has been furnished us by L. PRANG & Co., Boston, who have just published a valuable book entitled *"The Horse Owner's Guide,"* a notice of which may be found in another column.

The following lettering, as references, will show many of the diseases to which the horse is liable.

a. Sickly discharge from the nostrils.
b. Ulceration of the membrane lining the whole cavity of the nose, symptoms of glanders.
c. Caries of the lower jaw.
d. Swelling by pressure of the bridle.
e. Poll evil.
f. Inflamed jugular vein, comes frequently from bleeding.
g. Fungus tumor produced by pressure of the collar.
h. Fistula of the withers.
i. Tumor of the elbow.
j. Mallendero.
k. A tread upon the coronet.
l. Sand crack.
m. Contracted or ring foot of a foundered horse.
n. Ventral hernia.
o. Fistula of the tail.
p. Capped hock.
r. Swelled sinews.
s. Cow crack—toe crack.
t. Quarter crack.

Forty-seven distinct diseases, symptoms of which are visible in the outward appearance of the horse, are designated in the original plate in the book.

LIQUID GLUE.—The following recipe, the discovery of a French chemist, is selling about the country as a secret at various prices from one to five dollars. It is a handy and valuable composition as it does not gelatinize nor undergo putrefaction and fermentation and become offensive, and can be used cold for all necessary purposes of glue in making or mending furniture or broken vessels that are not exposed to water. In a wide-mouthed bottle dissolve eight ounces of best glue in a half-pint of water, by setting it in a vessel of water and heating it till dissolved. Then add slowly, constantly stirring, two and a half ounces of strong aquafortis (nitric acid). Keep it corked and it will be ready for use. This is the "Celebrated Prepared Glue," of which we hear so much.—*U. S. Journal.*

For the New England Farmer.

PROFITS OF FOWLS.

MR. EDITOR:—I have read with much interest a statement in the March number of your excellent journal, made by "J. B.," of Salem, giving the result of one year's account kept with his fowls. Could his success be generally realized, I think there would be far more accounts opened with the hennery. A very general opinion prevails, that the keeping of fowls affords no profit, but on the other hand, that, as a general thing, they do not pay. In fact, this last impression may be true to a great extent, and for the plain reason, that they do not receive that care and attention which is necessary to the successful management of any department of the farm or garden.

Many people seem to expect that they can rear fowls the same as they do their children, allowing them to run at large and take care of themselves, and the result in either case is very likely to be quite unsatisfactory. I believe there is no investment on which the farmer can make a better per

centage of comfort, health and money, than a judicious selection and a proper management of a moderate number of fowls. I have kept a few for several years, and besides the gratification afforded in rearing them, have enjoyed the luxury of a good supply of fresh eggs nearly all the year round; although obliged to confine them to the hennery, and buy all their eatables, I find that it pays me more than the cost. Still, I would not presume to compare accounts with "J. B.," of Salem, who will confer a favor on many of your readers, if he will give us a few additional items in relation to the management of his fowls, which proved with him so eminently successful. Did they run at large, or were they confined to a hennery? When were the scraps fed to them, and in what quantity? What was given them to furnish shells for their eggs? And any other particulars affecting the result.

What is the reputation of the Leghorn hens as layers, or for the table, and where can the pure bloods be obtained? I have found the Black Spanish to be good layers, but not worth cooking for the table, their flesh being very dry, tough and stringy at six months. I have also kept the Bolton Greys, and have found them to be less prolific layers, but very excellent for eating.

Brookline, April 3, 1861. J. R. B.

For the New England Farmer.

VARIOUS METHODS OF ECONOMIZING OUR CORN CROPS.

This subject may seem to be out of season, just now, as most farmers have not probably fully decided how much they will plant, neither can they for a certainty know whether they will have any to economize if they do plant. It is here that our faith comes into exercise, and our confidence in the stability of our Heavenly Father's government is manifested. The past is ever regarded as the surety of the future, and the Christian man regards it as a striking fulfilment of the Divine promise, that while the earth remaineth, seed time and harvest, and cold and heat, and summer and winter, and day and night, shall not cease. We all expect a harvest if we plant and sow, and however toilsome the occupation of the tiller of the soil, all are cheered on by the hope of a bountiful remuneration. How, then, can we secure the greatest return for our labor, is the great question for every man to ponder. The past season gave us a short hay crop; prices hereabouts were high for that article, and many sold stock at low prices rather than purchase provender for them. I think it can be made to appear that the evils of a short hay crop can be in a great measure obviated by a more judicious management of our corn crop, from beginning to end. I therefore present the matter previous to the usual planting season, so as to give those who are disposed an opportunity to test the suggestions I now make. To many, the suggestions are not new, but to a majority I suppose they are, if we are to judge from their prevailing practice.

It has become a fixed fact with me, that the fodder from an acre of corn is worth more than an acre of grass yielding two tons, to feed to stock upon the farm. This result is attained by planting thicker than most do, and cutting the corn by the ground, when sufficiently hardened, and putting it in large shocks to cure. I generally plant forty-two by twenty inches, leaving three stalks in a hill, from which I generally harvest from fifty to seventy-five bushels of corn to the acre. On one occasion I harvested from one acre and one hundred and fifty rods, one hundred and seventy-two bushels. This piece was planted 18 × 36. The yield of fodder was very great.

I state the yield of corn for the purpose of answering a prevailing notion that corn will not yield good crops planted so close together. For more than twenty-five years I have put corn in shocks, containing from one and a half to two bushels of ears without any serious injury at any one time. Once, a long, wet, warm period of weather caused some to mould, but not as bad as much that was standing in adjoining fields. I have often shocked when the dew was on, and even raining. Not one-half the risk as in wilting the fodder previous to shocking, as it will then pack so close as to prevent the free circulation of the air, which is not the case when put up green or wet. As the stalks wilt, they shrink, and thus the shock is open for the air freely to act through them. Another advantage of large shocks is, there is not so much waste by outside exposure as in small ones. Some recommend putting but a half-dozen hills into a shock, some a little more. Such shocks must of course expose most of the fodder to the elements, greatly injuring it.

When the corn is sufficiently cured, I generally husk in the field, binding the stalks in bundles of suitable size to handle easily, setting two rows of shocks together, and let them remain until ready to stack, or house them, as you prefer.

The important question now is, how to use this fodder to the best advantage? I will not attempt to show the fallacy of any practice, but simply state what appears to me the best method I know of. I saw a machine for chopping stalks the past winter in Daniel Sisson's barn, in Rhode Island, that was operated by horse power, which would prepare, in two hours, enough feed for forty or fifty head of cattle for twenty-four hours use, a man and horse doing all the work. The Lonsdale manufacturing company feed forty cattle, and use the same description of machine, requiring the same time and force. Cattle eat this chaff all up when mixed with a very little shorts or meal, and cows will give more and better milk than when fed on hay. By resorting to the methods I have indicated, I see not but we can keep our stock as well as farmers usually do, and much more of it.

For a number of years past I have used a stalk cutter which cuts them into two or three inch pieces, and I found the stock would eat up all but the big pieces, which I threw under them for bedding. This I think economy, but not so good as chaffing. The chaffing machine I have alluded to, is made at Harrisburg, Pa. K. O.

Rochester, April 16, 1861.

SETTING MILK.—Cream can not rise through a great depth of milk. If, therefore, milk is desired to retain its cream for a time, it should be put into a deep narrow dish; and if desired to free it of cream, pour it into a broad flat dish, one inch in depth.

For the New England Farmer.

SMITH'S BUTTER-WORKER.

MR. EDITOR:—I have noticed of late that considerable has been said in regard to churns, by the agricultural press. Allow me through the columns of your valuable paper to say a few words in regard to Smith's Premium Butter Worker, which, in my opinion, is the *ne plus ultra* of butter-making machines. In preface, let me say that I am wholly unacquainted with the proprietors of this machine, neither have I any interest in it, farther than I have in all good labor-saving machines.

The first I saw of this machine was at Milford, N. H., at the county fair, and through the politeness of the exhibitor I was shown the *modus operandi*. At the first glance I was favorably impressed with its neatness, simplicity and apparent durability. It is claimed for it that it will churn as well, and as quick, as any churn in existence, and that it will work and salt butter as well as can be done by any other process, with one-fifteenth part of the labor. Now, Mr. Editor, if this is so, is it not one of the *best* machines for butter-making?

Before me is a copy of the Albany, N. Y., *Country Gentleman*, dated Oct. 18th, 1860, in which is a communication from Hon. Levi Bartlett, of Warner, N. H., and in speaking of the New Hampshire State Fair, he says: "M. F. Colby, of Londonderry, exhibited a churn and butter-worker, (Smith's) which promises to become a favorite with butter-makers. He exhibited a beautiful sample of butter, a portion of several pounds churned on the morning of the 4th. The butter was churned inside of three minutes, salted, worked and moulded into pound lumps in less than ten minutes from the time the cream was put in the churn.

"Human hands or fingers had not touched the butter when exhibited, and it was none of the greasy mottled stuff that too often passes under the name of butter, but yellow, granular in fracture, solid and sweet."

This, coming from one of the most practical agricultural men in the United States, shows his opinion in regard to it. Perhaps this will elicit inquiries from some of your numerous readers which will tend to the public good.

Manchester, N. H., April, 1861. F. B. J.

For the New England Farmer.

REVIEW OF THE WINTER.

December, 1860, had a mean temperature of 21.40°, being about the usual mean. The amount of rain was 1.41 inches, and of snow 6.50. It fell in seven days. There was but little good sleighing in the month.

January, 1861, had a mean temperature of 16.15°, being about 3.32° below the mean, and is the coldest January of the past eight years, with the exception of 1856 and '57. From the 11th to 13th inclusive, the mercury ranged from 1 to 30° below zero; these being the only extreme cold days in the month. The amount of rain and melted show was 1.79 inches, and of snow 18.50 inches, being a larger amount of snow than usually falls here in the same month, consequently the sleighing was good through the month. There was but little rain and no thaw.

February had a mean temperature of 26.50°, being 6.65 warmer than the mean; it being the warmest February for eight years past, with the exception of 1857. The eighth day was the coldest day during the winter, having a mean temperature of 22.33° below zero. At 7 A. M., the mercury stood at 33.5° below zero. This was the greatest extreme known within the past ten years. The amount of rain and melted snow was about 2 inches, and of snow 7.75 inches. The sleighing was good during the first 12 days, and but little snow fell after that.

March had a mean temperature of 23.13°, being 1.27° colder than the mean. Three mornings the mercury stood below zero 2 to 4°. The amount of rain was 3.80, and of snow 6.75 inches.

Brandon, Vt., April, 1861. D. BUCKLAND.

CRANBERRY CULTURE---No. 3.

In a hilly country like New England, there occur many narrow valleys, winding along at the base of gentle ascents, which we call "swale" land, or meadows. Usually there is a small, crooked stream, running through them, which, in many cases, finds its source in a swamp of considerable extent above. These "runs" are often quite narrow, and have only a slight descent, and taking all things into account, are the most favorable localities to be devoted to cranberry culture. We have seen them where half a dozen hills of cranberry plants introduced, would in a few years take possession of the meadow, without flowing or culture.

One decided advantage in the occupation of such places, is the ease with which a dam may be erected, and the water thrown over the whole from a reservoir above.

Where swamps and such meadows occur, as we have described, they are usually skirted by sandy lands from which, through a succession of ages, the vegetable matter has been washed away into the lower grounds. Here, then, is an opportunity of excavating and forming the reservoir, and paying for it by enriching the sandy land with the muck. Make a ditch from reservoir to meadow, with a gate by which any desired quantity of water may be let out. In such an arrangement, the plants may be flooded in the course of a few hours while full of fruit, and thus saved from the frost, and the whole meadow may be kept covered through the winter.

If the meadow has so much fall as to require a too great depth of water at the lower end before the upper part is covered, throw a slight dam across half way down, or at any point that will obviate the difficulty. In this way we may succeed in the cultivation of the cranberry with certainty and profit because we can protect ourselves

against its two fatal enemies, the *worm* and the *frost!*

After what we have said, there is no necessity of speaking at length of the importance of flowing. It is well settled,

1. That there is no other economical way of protecting the crop from the frost.
2. That the fear of frost causes the cultivator to gather the berry before it is sufficiently red and ripe, and thereby greatly injures its flavor, and its appearance in the market.
3. That no other method than flowing has been devised, whereby the worm that attacks the blossom and deposits its eggs there can be destroyed. And,
4. By flowing the plants from the first of November, or even the early part of October, until quite late in May, or even later, they are kept from being winter-killed, or thrown out of the ground by its freezing and thawing.

In reply to the question—"How do you protect your fruit from frost?" our correspondent from New Hampshire says—"by flowing. I put on the water as soon as I am done picking, and keep it on till the last of May or first of June. To protect from fall frosts, I know of no way, unless the meadow is so situated as to have a reservoir of water above, so as to cover them when a cold night is coming."

Another correspondent says,—"The ability to flow is regarded as indispensable to success, even on the Cape, not only to secure them from frost, but to keep the soil properly wet."

From the considerations enumerated, it is evident that the *first* care of the cultivator should be to select a suitable piece of land—land of the right quality, and that may readily be flowed. There is plenty of such land in New England, and in the use of any other, there is never certainty of securing a crop—as the cultivator may succeed in growing the plants to see the blossoms filled with worms, or the nearly perfected fruit cut off by frost.

After Culture.—We have always supposed that where land is cleared of brush weeds and grasses, it would be necessary to keep the plants free from them afterwards, but we are informed Mr. Thacher's success in Yarmouth, has been the most favorable where they were planted *in the very midst of tall grass!* He is one of the most successful cultivators in New England.

Time of Setting the Plants.—The most favorable time to set the plants is in the spring, between the 20th of April and the last of May. If they are set in the fall, they should be covered with water through the entire winter and spring.

Underdraining for Cranberry Plants.—Some cultivators assert that meadows for cranberries must not be drained. Whether this opinion is formed from actual experiments in the two modes, we cannot say: but our opinion is, that a drained meadow, so completely under the control of the owner that he could keep the water at any given level under the surface, or above it, would present a perfect bed for the plants, and that a fruitful crop would be certain every season.

Upland Culture.—We have attempted the upland culture of cranberries, and so far as fruiting is concerned, have had satisfactory results on "swale" and even on sandy land. The sandy land was old, and so filled with the seeds of weeds, that in exterminating the weeds the young cranberry runners were so often disturbed as to prevent their covering the ground. On the "swale" or moist land, covered so deeply with sand and gravel as to choke down grass and weeds, the plants have nearly covered the ground in three years, and yield about four quarts of fruit to the rod. The plants were set a foot apart each way, which was six inches too far. We think every farmer who has a piece of this "swale" land may easily produce all the cranberries he would like for the use of his family, and at trifling cost.

Cranberries from Seed.—Cranberries may be raised from seed, but the process is a slow one, and we do not recommend it where plants may be as readily obtained as in this State. If they succeed, the growth is slow, and several years must elapse before any return is realized.

Though somewhat extended, this notice of the cranberry does not embrace anything like what may be said to present all that a beginner in its cultivation ought to have before him. He may find much in "Eastwood," or in the newspapers of the day, that is valuable.

The cranberry is one of the fruits that goes to make up our unrivalled New England list—fruits adapted to our climate and our wants, and coming into perfection through nearly the entire year. As a fruit they make home attractive, are a source of gratification to the family, and quite often of considerable pecuniary profit.

The demand at fair prices for American cranberries in foreign ports has never yet been supplied. They can be transported with little waste, so that if a tenth part of our suitable lands are devoted to their cultivation, they will become an important article of commercial value to the country.

SENSIBLE ADVICE.—Professor Silliman, of New Haven, recently closed a Smithsonian lecture by giving the following sensible advice to young men:—"If, therefore, you wish for a clear mind and strong muscles, and quiet nerves, and long life, and power prolonged in old age, permit me to say, although I am not giving a temperance

lecture, avoid all drinks above water and mild infusions of that fluid, shun tobacco, opium, and everything else that disturbs the normal state of the system; rely upon nutritious food, and mild, diluted drinks, of which water is the base, and you will need nothing beyond these things, except rest, and due moral regulations of all your powers, to give you long, happy and useful lives and a serene evening at the close."

For the New England Farmer.

THE CORN CROP.

MR. EDITOR:—I have frequently noticed in the *Farmer* and in agricultural reports, statements of the profit made in raising corn. A desire to know how far these statements are justified in fact, induced me last year to keep an exact account of what a piece of corn *actually did* cost, which I thought could be manured at comparatively small expense. The following is the statement, as set down in my "Farm Book:"

	Dr.
March 10, to 1 day's work hauling muck, (6 or 8 cords) 2 men and 2 yoke of oxen	$3,00
March 12, to 16 loads leaves and dirt from woods	5,00
April 12, to lot of manure, (about 6½ cords)	23,50
April 12, to hauling manure	12.00
April 12, to pitching over manure	3,00
May 5, to 6 barrels ammonia liquor	2,00
May 14 and 15, to 3 men 2 days, 1 man 1 day, 2 yoke oxen 1½ days	10.00
May 16, to planting	1,25
June 16, to hoeing, cultivating, &c	4,00
June 16, to 235 pounds guano	9,26
June 26, to hoeing, &c	4,00
July 30 and 31, to 2 men 1½ days	2,50
Oct. 2, to harvesting	4,00
Total cost	$83,51
	Cr.
By 53 bushels corn, at $1	$53,00
By fodder	5,00
By 20 bushels potatoes	6,00
By 200 lbs. squashes	2,00
Total	$66,00
Balance against corn	$17,51

The lot contained a little more than an acre, and was not hard to cultivate. The crop was considered, by those who saw it, as a very good one—more than the average for such cultivation. It should be stated, however, that a short-eared kind of corn was planted, which, I think, did not yield as much as a larger variety would have done. It will be noticed that everything is estimated so as to favor the corn; the muck at what it cost to haul it, the leaves ditto, the manure—which I happened to buy at a bargain—at what was paid for it, and interest on the land is not reckoned at all. Good manure is worth here, from seven to eight dollars per cord delivered on the land. The conclusion I arrive at is, that, under ordinary circumstances, an average corn crop in Essex county, which leaves the ground in as good condition as before it was prepared, does not pay the expense laid out upon it. The corn crop is chiefly valuable to us as a *means* of bringing land into a condition suitable for producing some other crops, and in that view may be profitable.

But raising corn in this region, as an end in itself, and without reference to future crops, will, I believe, impoverish the farmer in proportion to the extent to which he adopts that mode of management. J. S. HOWE.

Methuen, March, 1861.

EXTRACTS AND REPLIES.

RECLAIMING A RUN-OUT FARM—LEACHED ASHES AND STABLE MANURE—ROXBURY RUSSET.

1. Will it be more profitable to buy leached ashes at 7 cts. per bushel, or stable manure at $3 per cord, to haul either 2½ miles?

2. What would be the relative value of unleached ashes to leached ashes at the price above named?

3. Is it a fact that it takes more than one bushel of unleached ashes to make a bushel of leached and you therefore get better measure of the latter, as I have heard it stated?

I have a large thrifty Roxbury russet apple tree, which has blossomed profusely for the last ten or fifteen years, but the fruit drops off before it reaches the size of walnuts, so that it does not ripen generally more than a peck. G. H. C.

East Hampden, Me., April, 1861.

REMARKS.—1. Stable manure made from horses fed partly upon grain, and that had not been allowed to heat, would be worth more to your land, at $3 per cord, than leached ashes at seven cents per bushel. But it would be economical to give the land a top-dressing with the ashes, even after the manure is applied.

2. We cannot tell with certainty. Perhaps the leached ashes would be worth about half as much as the unleached.

3. It probably does require more.

If the non-bearing apple tree were ours, we should thin the blossoms, or as soon as the fruit is set, pick off two-thirds of it, and perhaps take out some limbs that might be spared, or head the tree in by cutting off the ends of the branches.

A NEW SOAP FOR WASHING CLOTHES.

In answer to an inquiry which appeared some weeks since in the *Farmer*, I wish to state that two years ago directions for the use of borax with soap, for washing, were given in this paper. Since that period the preparation has been in constant use in our family, and all pronounce it to be superior to any patent fluid or soap. Those directions I have somewhat modified into the following recipe:

Cut one pound of common bar soap into small pieces; dissolve this in two quarts of hot water. When the soap is thoroughly melted, add one ounce of powdered borax. Heat this to boiling, stirring well. Cool this new soap, and use one pint for four gallons of water, in which soak the clothes one hour before washing. E. E.

Newburyport, March 27.

CUTTING TIMBER AND THE MOON.

In your monthly for March, "Essex" says the "experience of Mr. Baker, of Dedham, in cutting timber is worthy of great regard," but treats him in his remarks as an old fogy that is worthy of no regard whatever. If his "observation," little or great, has more reason in it than Mr. Baker's experience, I am not able to see it. I know, from experience and observation both, that timber cut in the old of the moon in February is safe against worms or powderpost, as it is not at any other

season. I never have seen, in all the remarks published, one reason for disbelieving it. If the comparison of Mr. Baker with "the man in the moon" is sufficient against facts, then the matter is settled. But I have facts to show that timber, saplings, or anything else of wood kind, is greatly affected for the better when cut at that particular season. Whether "the man in the moon," or the moon itself, or the man who wields the axe, or the axe itself, is the cause, I do not know. When "Essex" has made one fair experiment, and finds there is nothing but moon in it, then he may cry moonshine. Till then I consider him "beyond the record." OTIS BRIGHAM.

Westboro', March, 1861.

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TO PREVENT A HORSE FROM "INTERFERING."

I have taken some pains to ascertain the practice of blacksmiths in this region, and find that the almost universal remedy for interference is to pare the outside of the hoof and thicken the inside of the shoe. The object being to produce a slight outward curvature of the fetlock joint.

A remedy sought in this way, if indeed it should ever prove a remedy, would be at the expense of a firm natural step, and all beauty of action. But this is not all; for the twisting of the fetlock, and coffin joints will be very likely to produce a weakness in those parts in consequence of the unequal strain upon the muscles.

Now a much more philosophical cure for interference will be found in the reverse of the above practice. That is, paring the *in*side of the hoof and thickening the *out*side of the shoe; thereby causing the animal to assume a wider position of the feet, both in standing and travelling.

If any one doubts, let him try the experiment for himself. C. A. WHITAKER.

Hancock, N. H., 1861.

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PROLIFIC SHEEP.

In February, 1843, a sheep (part merino and part native) about six years old, belonging to T. ANDREWS, Esq., brought two lambs at a birth. In August following the same sheep brought another lamb, and suckled it into January, 1844—and in February, 1844, (about the middle,) she brought two more lambs at a birth—making five lambs within the year; all the lambs lived or were raised until fit for the butcher, and were fine healthy lambs.

There were also two other sheep, mixed breed, rather more merino than the first-mentioned, and who had each a lamb in February, 1843—in August following, each a lamb—in early part of March, 1844, one of the same sheep had two more lambs, and the other had one, making twelve lambs from three sheep in a few weeks over a year.

The lambs born in February, 1843, ran with the sheep until sold to the butcher in July, 1843. Sheep are now in good order, but have had no extra keep except a few turnips in 1843.

Ipswich, Sept. 12, 1844.

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LARGE STEERS.

Mr. DANIEL CUSHMAN, of Wilmington, Vt., has a pair of steers, coming six years old, which can't be beat in Windham Co., perhaps not in New England. They are the best shaped cattle I ever saw, and as near perfect as any creatures can be. Their weight in October last, was 5400 lbs.; in January, 5800 lbs. They now weigh not far from 6000 lbs., and are growing as fast as at any time. I understand that he intends keeping them over another year. They have had but little meal yet. They now bid fair to become the largest pair of cattle ever raised in New England. Mr. Cushman has some more very fine stock at his barn, which I have not time to notice. They are of Durham blood. B. D. W.

Wilmington, Vt., April, 1861.

For the New England Farmer.

WHAT KIND OF CORN SHALL WE PLANT?

MR. EDITOR:—The above important question has been often asked. It was repeated not long since by one of your correspondents, and answered by him with great apparent confidence, that he had found the truth. I am not about to say his opinion is not correct. There are too many contingencies of soil, season, culture, etc., to allow a direct answer. But I cannot perceive a relationship so near as third cousin, between his premises and his conclusion. He takes 10 ears of eight rowed corn, 10 of ten rows, and 10 of the large twelve rowed kind—fair specimens, I have no doubt. He weighs them, shells them, and weighs the cobs. What is the result? Why simply this, the ears of the large twelve rowed kind are larger than the ears of the smaller eight rowed kind, and have more cobs in proportion to the corn. There are varieties of the twelve rowed corn both small and early, more so than some of the eight rowed, but these are not the kinds in question, as is evident both from the common use of the terms and the results of the experiment.

Suppose, sir, you take ten Durham oxen and ten Devons, or ten South Down wethers and ten Merinos, and find that the Durhams and South Downs are heavier than the others. What have you proved, except that the larger kinds are larger than the smaller. You have proved that your selection was a fair one, as the results are in accordance with the known laws of the species.

But your correspondent having proved that ten larger things are larger than ten smaller ones, goes on to suppose that each hill will produce five *such ears*, &c. Ah! "there is the rub." *Will* each hill, or each rod, of the different varieties produce five, or the same number whatever it may be, of such ears?

The advocates of the small and early varieties of corn admit fully the truth established by the experiment of weighing, &c., and put against this three items deduced from observation and from the known laws of vegetable life.

1. The smaller varieties will bear planting much thicker. No man puts out dwarf pear trees at the same distance he would standards, or the early York cabbage and the Drumhead with equal spaces. So an acre of ground will carry to full perfection, at least one-quarter more hills of the common eight rowed corn than of the large twelve rowed variety.

2. The same number of stalks, other things being equal, will bring a much larger number of ears. There seems to be a regular gradation from

the largest kinds, to the little popper, stuck full of ears from the ground to the tassel.

3. In a succession of years, on account of early and more perfect maturing, the whole crop, hard and soft, will be worth much more by the bushel.

Now, sir, if this article does any one any good, I suppose it will be by leading him to think. He will study the laws of growth and maturity of the different varieties. He will not approve or condemn indiscriminately. If he has a dry, rich soil, and can plant early, he may venture the large kinds. If, on the other hand, his land is cold, the season late, and the location one exposed to early frost, prudence will dictate a different course.

One fact I cannot say, which variety has received the most premiums, but I can say, that in the Berkshire societies the first premium has often honored the eight rowed variety, the test question being "the best acre of corn."

Pittsfield, April, 1861. S. REED.

For the New England Farmer.

THE LESSON TAUGHT BY IRISH HUSBANDRY.

BY JUDGE FRENCH.

"In the day of adversity consider," is the admonition of the Preacher, and possibly now, when the heart of every patriot sinks within him, with shame at the disgraceful position of a portion of our country whose Union was until recently our pride and boast, possibly now, we may be humble enough to conceive of the possibility that, as a nation, we are, in our agriculture, tending to destruction. Ireland, "First flower of the earth, first gem of the sea," is an illustration of the ruin which bad husbandry may bring upon a people. Ireland has a better soil and better climate than England. No country in the world equals it for pasturage. "The south-west coast," says a reliable writer, "enjoys a perpetual spring, owing to the ocean currents that set in from the tropics. Myrtles there grow in the open air, and the arbutus or strawberry-tree is one of the commonest of shrubs."

Prior to the famine of 1846, the *rural* population of Ireland numbered about twenty-five persons to each hundred acres of land, while it is but twelve in England, and fifteen in France.

The country was cut up into small farms, there being 300,000 farms of less than five acres each. A system of dividing the leased land among the children prevailed. The owners of the soil lived away from it, in England, or elsewhere, leaving agents to manage it in any way they pleased to get the most rent for the time, and send to the landlord to expend in foreign lands. The whole object was not to improve the soil, but to plunder it.

No improvements of a permanent character were made, no system of rotation was adopted, but every tenant was allowed to get what he could from the land. One expedient adopted was a sort of partnership, termed *Rundale*, in which a village of a hundred or more rented a tract of land together, using the pasturing in common, and each year dividing anew the arable land, so that it was for the interest of each to get annually what he could, with no interest whatever in the next year's crop. The only capital was human labor, few carts or wagons being employed, and the manure and crops even being conveyed either by men and women, or by donkeys in panniers. Potatoes yielding by far more sustenance per acre than wheat or other grain, were the principal crop.

The English government beheld with apprehension the approaching ruin, and devised various plans to avert it. It was manifest that a redundant and rapidly increasing population upon a soil growing yearly less productive, must bring upon itself starvation and ruin. Then came the potato disease, and with it the famine, which carried off by actual starvation and attendant diseases more than a million of this ill-fated people more than one-eighth of its whole population.

And now let us look at home, at

A PICTURE OF FARMING ON THE PRAIRIES.

And this was the natural result of bad husbandry, of relying on a single crop without rotation, and of plundering the soil for present gain with no regard to its future condition.

The *Country Gentleman* published a letter from which the following is taken.

"I enclose you a copy of a letter from an Illinois farmer, who was brought up to the business from a boy, in a good agricultural region in one of the counties bordering on the Hudson river, and was successful before removing West:

"'Regarding farming here, you already know the first two or three years we met with heavy losses by trying to raise wheat. The first fall I sowed 150 acres at an expense of $3 per acre—the spring following, 40 acres, thinking it best to try both winter and spring varieties. It yielded about 20 bushels per acre, and sold for 50 cents per bushel, hardly paying first cost, including harvesting and threshing.

"'Next fall I sowed 80 acres more, which proved a total failure. I then went on and prepared 180 acres during the fall for spring sowing. When spring came the weather was favorable for early sowing, and I had it all in nicely by the last week in April.

"'About this time it began to rain, and continued until Illinois was most all afloat, up to about the 20th of June. Then we had several weeks of dry and hot weather, which gave the wheat not already rotted a chance among the greatest growth of weeds you ever saw. On the upland the weeds yielded somewhat to the wheat, but took full possession on far the greatest portion. The result was that the wheat harvested and threshed did not pay for the labor of doing it, saying nothing of the cost of sowing. That fall I fell in debt $500 for labor and materials used, besides the expense of living. But I went on, and put 120 acres to winter wheat again. My teams were poor from wallowing in the mud, and from scanty feed, and had to go into quarters in this condition, with a chance only at coarse, flashy hay, and a little poor corn through the winter. You can judge how they must have looked in the spring.

"'My young cattle, with similar food, and exposure to cold, drenching rains, were very thin. But most of them lived through, and having no land prepared for spring crops, I concluded to change my plan, and try corn and cattle. Some of my ox teams were sold to meet most pressing wants—a rigid system of economy adopted, and with all the corn I could reasonably get in, I commenced another year. Wheat grew finely, chinch bug damaged it some, but it matured and yielded more than enough to pay expense of raising, selling it at 60 cents per bushel. So with my corn and some fat steers I shall make a better season than ever before, paying some of the losses of preceding years.'

"This is a correct history of the efforts of an intelligent farmer, whose habits are unexceptionable, and who could have had no idea of anything but success when he undertook farming on prairie land."

The above is not given as an illustration of the general result of prairie farming, but only to illustrate the fact that no capital is employed in Western agriculture. The whole cost of putting in 150 acres of wheat is set down at three dollars per acre, and the crop of *twenty bushels to the acre hardly paid the first cost!* The land was plundered of an exhausting crop, and nobody benefited, and millions of acres are treated in substantially the same way every year. It is doubtful whether, under the system practiced in any new States, the country is not the poorer by nearly the value of all the wheat produced! If we cut off from a farm all the wood and timber, and send it to market, we know that, by so much, the actual value of the land is lessened. Is it any less certain than when we take out of the land the elements of fertility, in the form of corn and wheat, and send them away, never to be returned, we in fact send away the soil, and sell the very capital which produces our annual income?

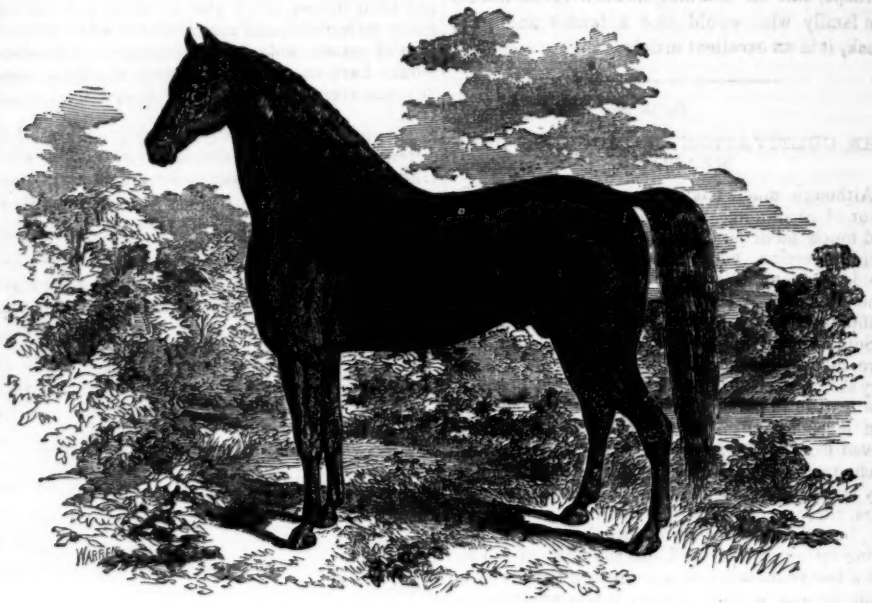
CAPITAL NECESSARY IN AGRICULTURE.

The distinction between good and bad husbandry might almost be said to be, that the former increases, while the latter lessens the productive capacity of the soil. A farmer in England who hired a farm of 1000 acres, assured us that he employed $50,000 in stock, implements, labor, manure, and the like, to conduct his farm profitably. His crop of wheat, usually 250 acres, averaged nearly thirty bushels to the acre. The wheat crop over all England averages about 28 bushels to the acre, while in the United States, it averaged, by the census of 1850, but 9½ bushels, in the States of New York and Indiana, but 12, in Illinois but 11, in Iowa but 14, and in no State above 16 bushels to the acre.

Ireland, at the time we speak of, was like an exhausted, worn-out farm. To have furnished that country with the capital which she lacked in sheep alone, as compared with England, would have required *one hundred millions of dollars*, and double that sum to have stocked the farms equally with England with other kinds of cattle! A French writer, who has carefully observed the agriculture of his own country and that of Great Britain, says that fifteen hundred millions of dollars, which, by the way, is not quite fifty dollars to the acre, would not, in 1846, have furnished Ireland, as an agricultural country, with the capital actually invested in England in the improvement of her soil. The general aspect of the two countries supports this assertion, astounding as it may seem. While the traveller in England beholds on all sides, magnificent estates, with castles and palaces, and spacious parks filled with cattle and sheep and deer, and beyond, and all around, substantial farm-houses, in the midst of extensive fields waving with grain, or verdant with vegetable growth, or clothed all over with cattle and sheep, while on every side springs up to view, evidences not only of present prosperity and plenty, but in the fine old trees—in the cathedrals—in the permanent bridges and well-built roads, are seen the proofs that affluence has long prevailed, and men have had time to care for posterity—in Ireland, nothing like this is seen. There is enough of verdure to indicate the natural fertility of the land, but in passing through its whole extent, except near the large towns, we scarcely beheld an ornamental tree, or a fruit tree, or a hedge. The country looks sad and desolate. The miserable hovels of the laborers, the small holdings, now being united into larger estates, the want of substantial farm structures, and of the fat and heavy teams of England, give one the impression of poverty now, and poverty long endured, of a country whose people in their struggle for existence, had given no thought to anything beyond the bare necessities of life.

Within the past few years, under an Act of Parliament for the sale of Incumbered Estates, the lands of Ireland are changing hands, and passing into the possession of a class mostly of Irishmen, but of men who have capital to employ on the estates which they purchase for their homes, but generations of prosperous and energetic labor must pass by, before this abused and worn-out country can be restored to fertility. In the history of Irish agriculture and its train of evils, let us learn the lesson taught so plainly, that a system which impoverishes the soil, must at last bring poverty and ruin.

TURNING AND BORING GLASS.—The London *Magazine* states that John Chedgey, of that city, has succeeded in turning and boring glass, and has thus rendered it more applicable to a great variety of useful purposes. He makes glass cylinders perfectly round and smooth; also very strong glass pipes as substitutes for metal in conveying acids and alkalies, and his cylinders are eminently adapted for the barrels of pumps. Glass tubes of moderate bore are quite common, but they are never made with a uniform size of bore.



THE ORIGINAL BLACK HAWK.

Through the kindness of CHARLES L. FLINT, Esq., Secretary of the *State Board of Agriculture*, we are enabled to place before the reader the most beautiful and perfect portrait of the famous horse *Black Hawk* that has ever been given of that far-famed animal. We have never looked upon any other horse with so much admiration as we have upon Black Hawk. His intelligence was equal to his beauty, and his splendid action corresponded with his other remarkable qualities. We fear that it will be a long time before we shall look upon his like again. Some of his descendants are of rare beauty and action, but it would be wonderful if they possess that combination of beauty, grace, courage, speed and endurance, which the old hero bore so proudly.

The description of Black Hawk which follows, we copy from the Report on Horses, by Prof. W. S. CLARK, given in the volume of Agriculture for Massachusetts, for 1860.

The famous stallion, Black Hawk, is thought, by some, to have been got by Sherman Morgan out of a half-bred English mare, said to have been raised in New Brunswick, and to have been of a black color, a fast trotter, and a very fine animal. This horse was foaled in 1833, in Greenland, New Hampshire, and when four years old, was purchased for $150, and used as a roadster by Benjamin Thurston, of Lowell, until 1844. As he was a beautiful, spirited horse, able to trot his mile in two minutes and forty seconds, and as the few colts he had got proved remarkably promising, he was then bought by Major David Hill, of Bridport, Vermont, who kept him until his death in 1856. Black Hawk was about fifteen hands high, and weighed nine hundred and fifty pounds. His skeleton is preserved in the Museum of Natural History, at the State House in Boston. He was a horse of almost perfect form for a roadster, compact, symmetrical and muscular, and possessed of most beautiful head, neck and limbs. He was active, elegant, spirited, and pleasant, and marked his offspring with his own peculiar excellences and characteristics, even to color, more decidedly, perhaps, than any other American horse. His numerous and justly esteemed descendants constitute the best breed of roadsters ever known, combining the intelligence, courage, elegance, life and endurance, of the thorough bred horse, with sufficient bone and substance, and the finest possible trotting action.

THE CYLINDRICAL MEAT MASHER.—In the April Monthly we gave an illustration and description of a little machine for mashing beef steaks to make them tender and eatable, but stated that we *had not used it*. Since that time it has been used whenever we have been so fortunate as to be in possession of a beef steak, and under its operation we find the meat tender and juicy. It mashes the steak without squeezing out the juice, and when over the fire admit the heat

to every part, so that it may be broiled in a short time and retain all its juices. It might not, perhaps, suit all boarding-house keepers, but for the family who would like a tender and juicy steak, it is an excellent article.

For the New England Farmer.

THE CULTIVATION OF MUCK OR PEAT MEADOWS.

Although much has been said and written in favor of reclaiming and cultivating these lands, and much labor and capital has been spent in their subjection, yet it remains a question in the minds of many intelligent farmers, whether the time and money thus spent are, on the whole, profitable investments.

Some experienced farmers of my acquaintance have made experiments upon these lands, until they are convinced that the business does not pay. The meadows have been properly drained, the thin layer of moss, roots and wild grasses removed from the surface; the land has been plowed or chopped over, a sprinkling of sand, loam, or clay applied, and seeded down. For two or three years, there would be a tolerable crop of English hay, but after that time, the natural grasses would spring up again, and root out the foreign kinds. But a few years would elapse, before the meadow would be less productive than it was while in its natural state. Means were taken to arrest the growth of the wild grasses, but they did not have a permanent effect.

To spread a coat of gravel or sand upon the meadow of a thickness sufficient to kill the original grass roots, would require an amount of capital which but few farmers have to spare; and in addition to the above expense, the upland soil would have to be robbed of a portion of its fertile matter, to form an artificial soil upon this bed of gravel, or nothing would grow. This mode of operation is also one of extremely doubtful utility. From my own observation and experience, and from that of others well qualified to judge, I have come to the conclusion, that if the same amount of labor and capital which is annually expended in the cultivation of these meadows, was employed in subsoiling, trenching, draining, and manuring uplands of average fertility, the farmer would receive double, if not treble the amount of profit.

Nature is ever ready to assist man when he does not transgress her laws, but these laws are transgressed when he attempts to rear upon muck or peat meadows, plants or grasses, which naturally grow *only* upon the dry land.

The cranberry crop is the only one within my knowledge which can be profitably raised upon these meadows. The present market price of this fruit should be a sufficient inducement, it seems to me, for the owner of such lands to commence its cultivation, if he has a good stock of patience and perseverance to carry it through. But the principal purpose for which these places were formed by the all-wise Creator, is just beginning to be generally understood.

It is found that muck, when properly applied to almost every variety of upland soil, will produce highly beneficial results upon all kinds of plants, grasses, and fruit trees. In the renovation of old, worn-out pasture lands, I have not the least doubt, that an application of muck, after it has been thrown out a year or more, and become finely pulverized, and mixed with a small proportion of potash, soda ash, or common wood ashes, would have an extremely beneficial effect. Has any one ever given this mode of operation a fair trial?

Do you think, Mr. Editor, that if a farmer has a few acres of muck meadow, he can put such land to a better use, than to keep it in reserve, as a source from whence to draw a yearly supply of fertilizing matter for the benefit of his uplands?

As this is a subject of great importance, it is hoped that all who have had practical experience concerning it, will give to the readers of the *Farmer*, the result of their observations.

South Groton, 1861. S. L. WHITE.

REMARKS.—The plan of our correspondent of mixing old meadow muck with some alkaline substance, as a dressing for pastures or fields of sandy loam, is an excellent one—and a muck bed held in reserve for this purpose, is valuable property.

Whether we shall reclaim our muck meadow, however, depends upon circumstances. Some of the best, and most profitable lands on the farms all about us, were reclaimed muck meadows—no other lands of the farms pay so good an interest, taking into account the original value of the land and the cost of reclaiming. But they will not all do this. It must depend mainly upon the cost of reclamation.

For the New England Farmer.

POUDRETTE.

MESSRS. EDITORS:—I have for several years experimented with the various fertilizers recommended to the farmers for their wonderful effects on vegetation, and have been sadly disappointed. Last season I was induced to purchase four barrels of "The Lodi Manufacturing Company's Poudrette," which I used principally on my corn crop. For many years my practice has been to plow or harrow in the manure, and apply some concentrated manure in the hill, to give the crop an early start.

I have found guano and the superphosphates, however carefully managed when put into the hill, are apt to injure the seed and prevent its germination; not so with poudrette. Last season I applied it to the corn in the hill with perfect safety, and with the most satisfactory results; the corn came up well, grew vigorously, and had at least ten days the start of the corn where no poudrette was applied, and notwithstanding the early frosts injured our crops seriously, yet I am satisfied that a much larger portion was fully matured where the poudrette was applied, than on the other part. In fact, I consider it one of the cheapest concentrated fertilizers extant, and shall use it extensively the present season.

HORACE COLLAMORE.

Pembroke, April 26, 1861.

For the New England Farmer.

FENCES AND PASTURES.

MR. EDITOR:—In relation to the profits of farming, a question which has been so much discussed recently, it is evident that whatever tends to diminish the expense, without lessening the income, must, in like proportion, increase the net profits.

Many of our farmers might accomplish much in this way, in the item of fencing. Farmer A., for instance, finds it rather troublesome keeping his cattle in the barn all the spring, and is, perhaps, a little short of hay withal, and concludes to turn his stock out awhile each day, but frost not being quite out of the ground, or not having his other work out of the way, or, it may be, thinking his cattle can do no serious damage at this season, if they do chance to get out, he postpones repairing fences to a "more convenient season."

Farmer B., not having "finished sugaring," or cutting up his wood-pile, until near the usual time of "turning out to grass," takes a look at his fences, and patches up some of the worst spots, and thinks his cattle will not get over, at least, until he has time to repair more thoroughly; but other business crowds, and somehow it runs along till perhaps in the midst of haying, the feed becoming short, his animals look out for themselves in the corn field, or meadow, and he is obliged to leave his work to drive them out, and of course mends the fence where they broke over, but is too busy securing his hay to look farther. The cattle having once got a "taste," they must be stupid animals that do not try another weak spot.

Farmer A. goes through a similar course, only having "begun at the root;" his discipline is likely to be more effectual, and both farmers, after having spent more time in running after "trespassers" and patching up fences than would have been required to mend the fence so as to have been absolutely safe, find themselves with a set of unruly cattle on their hands, to say nothing of the damage done to corn fields, gardens and orchards, or of the effects on the temper of the farmers themselves.

Overstocking pastures, too, is a common fault. I believe that, in most cases, more profit would be realized by reducing the stock ordinarily pastured in this State to two-thirds the present number, (and this will apply to winter keeping in many cases,) and of course diminishing the labor of taking care of them by nearly one-third. We should then hear less of old worn-out pastures, and less inconvenience would be experienced from drought, both from the fact that such land would be better protected from its effects, and the surplus feed which might be made use of in case of necessity.

There is room to effect another considerable saving on our cultivated grounds. Nothing is more common than the disposition to measure the area for cultivation by the desired amount of crops as income, rather than by the amount of labor which can be applied in the growing season, which should be the rule.

No farmer should attempt to cultivate more land than he has time to keep entirely free from weeds, after making due allowance for hindrances from unfavorable weather, unexpected interruption, &c. I am fully satisfied that no more land should be devoted to the corn crop, than can be made to yield from 60 to 80 bushels to the acre, under all ordinary circumstances. Whatever is attempted beyond what the above rules indicate, will generally increase the expense, leave the land in bad condition, and give no increase in the present crop. WM. F. BASSETT.

Ashfield, April, 1861.

For the New England Farmer.

SUGAR MAKING.

When in mute prophetic murmurs
Blithely sway the branches bare,
Prophecies of coming summer,
Wrought in the mysterious air,
Ere the bright seed-time is come,
High we raise our "Harvest Home."

When the blue-bird and the robin
By the breath are born of spring,
And we pause full oft to listen
To the strains these songsters sing,
Sweeter things our senses thrill,
Sweets that flow from "Sugar Hill."

Ere the lowly, loved Arbutus
Springs amid the parting drifts,
Or the early blossoming crocus
To the sun its brightness lifts,
Sweeter thoughts than those of these
Dwell amid the maple trees. RUSTIC.

Sugar Hill, April, 1861.

For the New England Farmer.

WASTED MANURE.

MR. EDITOR:—Perhaps it never occurred to many of the readers of the *Farmer*, what a vast amount of manure is wasted every year, all of which might be saved, by a little forethought and judicious management. The old proverb has it, "A penny saved, is worth two earned," and no doubt the rule will apply to manures, as well as pennies, and here is my plan for saving it. Here in Vermont—and we presume it is the case in other places—many of the barn-yards are so situated, that while the snow is melting away, as well as in rainy times, there is quite a stream of water running through the yard, leaching and washing away the best part of the manure. And with regard to many of the old-fashioned barns, which have no cellars, the manure is thrown out of windows directly under the eaves of the barn, and there it lies, often all through the summer, soaking and washed with every shower. This should not be so; no farmer can afford to lose so much as is lost in this way every year. Every barn should either have sheds, or a cellar attached, in which to deposit the manure, and every yard should be highest on the outer edges. But if this is impracticable, let small trenches be dug when the ground first thaws, or furrows may be plowed in the fall, which should have various branches, and in this way the washings of the barn-yard may be carried some distance, and in all directions. The effects of this plan of irrigation will be visible all through the season, and satisfactory results obtained, often increasing the hay crop one-half.

Not only water which has been filtered through

the manure heap, but brook water, turned out of its natural channel, both on low meadow and dry land, will increase the hay crop greatly. The little streams which course down our hill sides, in spring time, if turned out of their natural courses and allowed to spread over the barren knolls, would be found to be great fertilizers. Old pastures are benefited by this mode as well as fields. I have tried both draining and flowing wet grass meadows, and unless they can be drained dry enough to plow, say turn on the water. If possible, let sand be washed on with the running water.

T. P. BAILEY.

Newbury, Vt., April, 1861.

For the New England Farmer.

WASH FOR PEAR BLIGHT AND CURCULIO.

MR. EDITOR:—In the latter part of July, 1859, I noticed the leaves on a Beurre Diel pear tree, (of some dozen years growth,) were beginning to turn black, and in a few days when I next saw it, I was surprised to find nearly three-fourths of its foliage in the same condition. Thinking it might be the work of some minute insect, which I tried in vain to discover, I syringed it with a lime wash which I was using to protect my plums from the curculio. This I repeated every morning for three or four days, which arrested the further progress of the disease, but left my tree denuded of most of its foliage, while a fair crop of fruit remained on the tree, but did not mature, and was quite worthless. In the spring of 1860, the tree blossomed, leaved out, and presented its usual healthy appearance; but again in July, the same disease reappeared, and I at once commenced the same treatment as the previous year, saving the foliage and fruit, which matured in its usual perfection. The wood and bark appeared to be perfectly sound both seasons, and although this tree was surrounded by many others of different varieties, none of them were similarly affected. I have been unable to detect any adequate cause, or to recognize any disease described by Downing in his book on Fruit Trees, in the case I have mentioned, and my only object in bringing these facts to your notice, is to ascertain if I may, from you, or some one of your contributors, learn the probable cause of the malady, while I give you the result of my treatment.

I will here remark, that I have found that a wash, made of a piece of quicklime the size of a quart measure, put to a half-barrel of water, stand two days and then well stirred, is a sure protection for the plum, from the attacks of the curculio. It should be applied very soon after the blossoms fall, and repeated as often as once a week or ten days, until the fruit is fully grown. With a common garden syringe, a good sized tree may be completely covered with the wash in a few moments; I believe the failure of this remedy will be owing only to its imperfect application, or the solution being made too weak to be distasteful to insects. I raised a fine crop of Blue Gages last season, on a tree which has been stripped of its fruit every summer for several years. I believe the frequent use of this wash promotes the health and vigor of the tree.

Brookline, April 16, 1861. J. R. B.

EXTRACTS AND REPLIES.

CORN AND COB MEAL.

There has been much said in the *Farmer* in regard to using corn and cobs ground together for feed. I do not pretend to know how much nutriment there is in the cob, but I cannot say as Dr. Brown does, that it is worthless for hogs. For the last twelve years I have fatted my hogs (or rather pigs, for I winter no hogs) on cob and corn meal. I buy my pigs early in the spring, say in March, feed milk the first month, then add a little of the corn and cob meal, and increase it as they will bear it until I slaughter them, about the first or second week in December, weighing from 300 to 350 lbs. I feed them no other meal. I am a miller, and grind my own feed. It is the universal practice of my customers to have their corn ground in the ear. Some of our best farmers have ground twenty bushels of clear cobs at one grist for feeding their store hogs, giving them no other meal, clear cob meal answering a good purpose. If the corn and cobs are ground as they should be, there will be no sharp, flinty scales or shells, and it can be fed as safely as corn or shorts.

A. P.

Buckland, April, 1861.

AN INTERESTING ACCOUNT OF A LARGE HOG.

Not having seen any notice in the *N. E. Farmer* of the large hog raised at Oak Hill Farm, owned by Richard S. Rogers, Esq., South Danvers, I am induced to hand you annexed, a minute account of his weight, &c., for the columns of the *Farmer*.

2 years 10 months old.
7 feet 2 inches girt.
3 " 3 " height.
8 " from tip of his nose to root of his tail.
10 " from tip to tip.

1108 lbs. live weight.
1060 " after being bled.

48 " loss of blood and water.

1060
1054 lbs. after being dressed of his bristles.

6 lbs. loss by bristles.

1054
944 lbs. when dressed.

110 lbs. loss by offal.

944
40 lbs. rough tallow.

984
16 lbs. harslet.

1000 lbs. net weight of hog.

1108 lbs. live weight.
1000 " net weight.

108 lbs. shrinkage, or only 9¾ per cent.

The hog was slaughtered by me, and if the weather had permitted, might have been made to weigh 200 to 300 pounds more, in being kept a few weeks longer.

CHARLES D. TILTON.

South Danvers, March 29, 1861.

COOK'S SUGAR EVAPORATOR.

In reply to your correspondent from Henniker, N. H., I will say that Messrs. Blymgers, Bates & Day, of Mansfield, Ohio, manufacture "*Cook's Sugar Evaporator*," and they can be obtained of them, or from A. S. Clark, agent, Bellows Falls, Vt. The kind I use, No. 3, galvanized iron, costs

$55; copper, same size, $65. As to the evaporator, I have to say that I have used it the second year, and am thoroughly convinced of its utility. I have reconstructed my sugar-works, and as now arranged, heat the sap from the fire of the evaporator. I have a sheet-iron pan, 5½ feet long, 3½ feet wide, that receives the fire from the evaporator, which is set with a partition underneath, so that the fire goes twice the length of the pan before it reaches the chimney.

With this arrangement I can boil from 30 to 40 bbls. in 24 hours, and at the same time make the best quality of sugar, I should not be willing to undertake to make sugar without one of "Cook's evaporators." GEO. CAMPBELL.

West Westminster, Vt., April 15, 1861.

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TIME FOR PRUNING—THE BORER AND CURCULIO —A COVERING FOR WOUNDED LIMBS.

I wish to inquire the best time for pruning apple trees, and the reasons for the different opinions upon the subject; and for the best varieties of apples, for a limited number for New England cultivation. Also, information upon the habits and ravages of the borer and curculio, as connected with the culture of apples. What is the best composition to apply to the stocks of apple trees from which large limbs have been removed?

REMARKS.—Prune apple trees in the middle of June, or immediately after the fall of the leaf in October. For reasons, see weekly *Farmer* of April 13, or the forthcoming number of the Monthly for May.

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HOW TO BUILD AN ARCH.

I wish to inquire through the *Farmer* how to build an arch to set two pans, each 5 inches deep, 28 inches wide, 45 inches long, for boiling sap. 1. How should an ox-bow arch be built? 2. How high should the pans be raised? 3. How should the front of the arch be built and not have the chimney in the way of the fireman. 4. How high and large should the chimney be? 5. Should there be a door, if so, how made; will it need a damper, and how large? I wish some of your numerous subscribers would give the information needed. AN OLD SUBSCRIBER.

Addison Co., Vt., April, 1861.

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IS IT BENEFICIAL TO THE SUGAR MAPLE TO PLUG UP THE HOLES AFTER SUGARING?

There seems to be a variety of opinions in this vicinity; some say that it makes the tree rot worse to plug it up than it does to leave it open.

G. W. D.

P. S.—We have just had another severe New England snow storm, and it is very good sleighing to-day, the 18th.

Windham, Vt., April 18, 1861.

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DRIVE PIPE FOR HYDRAULIC RAMS.

I wish to inquire of you, or of any who can tell me, through the *Farmer*, what pipe is best, inch and one-fourth in size, to drive a No. 4 hydraulic ram. I put one in operation last fall with twenty-six feet of inch and one-fourth drive pipe—weighs three pounds to the foot, with nine feet head or fall. The water is raised and discharged sixty-four rods from the ram, at an elevation of fifty-nine feet. I think the ram would work well if I could procure a drive pipe strong enough to drive the ram. E. C. ALLIS.

Whately, April 15, 1861.

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PROSPECTS OF THE SEASON.

Gloomy and forbidding; all Nature harmonizes therewith—wars and rumors of wars, treachery and rascality abound. No warm and sunny days as yet. No appearance of expansion of buds on the trees. Grass hesitates in starting, begins to yield a little to the drizzling rains now falling. Must live on hope, if we live at all—always remembering, that "hope deferred maketh the heart sick." Some are starting with their knapsacks on their back, and guns in hand, not knowing where their services will be required, nor why, but always true to the spirit that animated their grandsires, in times gone by, and while this feeling survives, the country is safe—and the harvest is sure. ESSEX.

April 22, 1861.

For the New England Farmer.

SHORT NOTES ON NEW THINGS.

I perceive it is quite common for some of your correspondents to make brief notes on sundry articles in the *Farmer*—a good custom, by the way, if only pursued disinterestedly.

In the *Farmer* of the 9th inst, you give an account of a cylindrical *Meat-Masher*, which looks really as though it would operate, and if it will do what the proprietor claims, *i. e.*, "make the toughest meat equal to the most tender," it will prove a decidedly desirable institution.

Next you have a *Rotary Harrow*. I have seen several of these, of different patterns, and don't think they will work well, unless upon soil decidedly free from stones and every other obstruction, and would advise your readers to look well before leaping—here.

Again; you have *Hungarian Grass*. The writer raised this grass a year or two, and came to the conclusion that it would not pay to plow up grass land, that yielded even a medium crop, for this grain, or grass, which we know is only an annual. Look out for those who have seed to sell.

An article on *Dogs and Sheep* meets with my most hearty approval. We want our laws more stringent upon dogs and dog-raising, and giving the man who has losses by them, some way in which he can recover, or else we must give up sheep husbandry entirely. Only a few days since, a neighbor lost twelve or fifteen fine sheep in this way; caught the dog in the act, which, as usual, was found to be owned by a man of no pecuniary responsibility, and consequently he will get no remuneration for his loss.

Influence of Farm Employments.—The writer says truly, "If anything, farming requires more skill and science than any other pursuit." This is mainly true, but enterprise and indomitable perseverance accomplish much, here. Indeed, I was about to say, a man can succeed in almost any pursuit, if he only has a sufficient quantity of *Snap*. W. J. P.

Salisbury, Ct., April 18, 1861.

For the New England Farmer.

WHEAT CROP.

The excellent article and commendable spirit of your correspondent "E. C. P.," on the subject of wheat-growing, cannot fail in part to enlist the cordial approval of the farmer. In regard to the crop of rye, it should be the last crop he should cultivate, or merely enough for family brown bread. The same soil and labor will give more bushels of winter wheat than rye—then why not sow wheat? But your correspondent says—"I know the wheat crop fails three times where corn fails once," that it is "an uncertain crop." In answer to this I beg to say, while the corn crop is almost a sure one, barley and oats often mildew, and the same danger attends the maturing of spring wheat, yet the chances are about equal. Warm land, early sowing and plenty of horse manure plowed in, will almost insure a crop. In regard to winter wheat and the mischances of winter killing, this should be considered as no discouragement; it can be avoided by getting into the ground early, to the depth of two or three inches—well rooted and a good fall growth will insure a crop five years out of six, without winter-kill, in your region.

In regard to phosphates and the crops of the West and Western New York, if they would apply barn-yard manure on soils that are capable of being exhausted and are exhausted, the phosphates would be returned to the soil, lime, of course, being a component part. Yet slaked lime or ashes are excellent fertilizers to harrow in, or sow after the grain is up.

The farmer, by practicing with deep plowing and manuring liberally (as above suggested) will have little occasion to employ artificial phosphates and guano, and deplore the loss of the wheat-growing properties of the soil. This is one of the long-standing popular errors of the day, —now pretty nearly exploded. Wheat will grow, (as I know by six years practical experience in good old Essex) on every farm in New England that will produce rye, barley or oats. At one dollar a bushel it pays equal to either of the cereal crops.

I should not advise the farmer to experiment on a small scale. Evidence of great success all around you, has opened the conviction that by adopting the large scale the New England States will raise their own flour in five to ten years. This we have a right to infer from the progress of the past two years.

I always look over these wheat communications with deep interest, as I trust I comprehend this important, much and long-neglected branch of farming in the old States. With few deductions (in my humble judgment, to which I have taken the liberty to refer) the communication of "E. C. P." is profitable reading for the farmer. Making my best bow, Mr. Editor, I wish you many more such. H. POOR.

Brooklyn, L. I., April 23, 1861.

FRUIT TREES pruned at this season bleed profusely. We recommend the trial of *hydraulic cement* and "boiled" plaster, mixed dry and rubbed into the pores of the bleeding limbs. We have been applied to for a remedy in a case where shellac dissolved in alcohol would not answer, and throw out this hint, having tested it successfully to all appearance, though whether the bleeding was so strong in the case we tried that shellac would not stop it, we cannot tell. The idea is that it will set in the pores and prevent the passage of the sap. The loss of sap does no injury to the tree, but it scalds and kills the bark, making a bad wound.—*The Homestead.*

For the New England Farmer.

EIGHTH ANNUAL REPORT OF THE SECRETARY.

This handsome volume of more than 500 pages has just come to hand. The first 250 are from the pen of the accomplished Secretary, and need no encomium. They have the usual fullness and completeness of his discussions. Everything but the cattle disease, I like; for this I have no fancy, because I think we know little or nothing about it, and that the honorable commissioners know about the same as the rest of the people. From the beginning I have thought the money expended on this topic was nearly wasted. Next come about 60 pages of reports from the several delegates to the County Societies; there should be twice as many, because this affords the only means we have of judging of the ability of these gentlemen, who should be the representatives of the genuine yeomanry of the State, and who have the very best opportunity of understanding what they do, and what they omit that ought to be done. Then come 50 pages of selections from addresses, some of which are very good. Then come about 100 pages from the farmers themselves; in which I am pleased to find, as heretofore, the old counties of Essex and Norfolk fully represented. Why is there not more, from the valley of the Connecticut, and the region West? Are the cultivators there so busily engaged that they cannot stop to tell what they have done; or are they ashamed to speak of the crops they grow, especially their tobacco? I wish they were, and to use it also, for next to intoxicating liquor, I believe it stupefies and destroys more than any one cause. "O, that men should be such fools as to put enemies in their mouths to steal away their brains!" P.

April 10, 1861.

For the New England Farmer.

SULPHUR A PREVENTIVE OF WORMS IN ONIONS.

MR. EDITOR:—*Dear Sir,*—On the 13th of April, 1860, I sowed my onion patch, and herewith give you the result of my experiment. The soil, a dark loam, was all manured alike with compost manure. On one half of the land, I sowed the seed as usual, using a drill barrow; on the other half of the ground, with the seed, I mixed flour of sulphur, one-half pound to one pound of seed, and for the reason that sulphur is so much heavier than onion seed not over a half pint of seed and sulphur should be put into the hopper or seed-box at a time. In this way the seed and sulphur will be sown uniformly together. My onions came up and looked equally well in both cases, until the first week in June, when, after a warm rain, those without sulphur began to

droop and die, and at harvesting I had only about a quarter of a crop, while those with sulphur yielded a large and fine crop, with not a sign of the maggot during the season.

CORNELIUS CALLAGHAN,
Gardener to John Wooldridge, Esq.

Lynn, April 12, 1861.

REMARKS.—Sulphur being a mineral, why should it not operate equally beneficial, if spread broadcast over the field, and perhaps slightly raked in before sowing the seed? Or, spread over the ground after the seed is sown, and left on the surface? We learn that our correspondent will experiment by sowing sulphur broadcast, as well as by sowing it with the seed, and hope he will give us the result.

COE AND CO.'S SUPERPHOSPHATES.

Dr. Hatch, of Keene, N. H., has addressed an interesting communication to the selling agents of Messrs. Coe & Co., on the relative merits of their superphosphates and the Peruvian guano. Dr. Hatch is a gentleman whose scientific education is of the highest and most precise kind, while he is also a careful and experienced practical agriculturist—qualities not often found in the same person in so great a degree. We ask attention to his letter:

MESSRS. ELLIOT & RIPLEY:—*Gents,*—At your request I annex a statement as regards the relative value of Coe's Superphosphate of Lime and Peruvian Guano.

Being obliged to purchase manure for a large portion of my crops last year, I made inquiries for the best and cheapest. I was satisfied, theoretically, that Superphosphate of Lime was what I needed, but was persuaded to try at the same time Peruvian Guano. I plowed two acres of light sandy loam, and used on one-half three bags of Coe's Superphosphate of Lime, on the other, one and a half bags of the best Peruvian Guano, costing ten cents more than the lime. The land was sowed to Hungarian grass, millet and clover. The result was the same in each instance, viz.: that portion of the land upon which the guano was used produced only about two-thirds as much as the other. In my garden, I found that the peas, (contrary to my prediction,) came up earlier, grew faster and larger, and yielded more than twice the quantity upon the superphosphate than those upon the guano. I also tried the same experiment with early potatoes, with precisely the same result. I also used the lime for corn, oats, carrots, mangolds and turnips, and in every instance to my entire satisfaction. I have no hesitation in saying that I consider it the best and cheapest artificial manure that can be bought.

Keene, April 6, 1861. THOS. E. HATCH.

We learn from our numerous correspondents that the Phosphate is not only quicker in its effects than Peruvian Guano, but much more durable, lasting from five to six years; and after all the information we have received, we give it as our opinion that Coe's Superphosphate of Lime is far the best fertilizer the farmer can use.—*Boston Journal.*

For the New England Farmer.

IS IT PROFITABLE TO KEEP HENS?

MR. EDITOR:—The above question has been freely discussed in your paper in times past, and much has been said on both sides, yet I could not decide it for myself without practical demonstration; accordingly, as I had a stock of 11 hens, I commenced, on the 1st of January, 1860, to keep an exact account of debt and credit for the year ending Jan. 1, 1861.

The result is as follows:

Cost of 11 hens, at 33c	$3.63
Cost of keep, 14 bush. oats at 45c per bush	6,30
Total amount	$9,93

Early in the spring 3 of the 11 died, and the amount of eggs produced was 1133; to get the true value of which I credited them at the ruling price at the village store, as fast as a dozen accumulated, (the price varied from 20 cents down to 12 cents per dozen.)

The value of the eggs was	$14,50
Stock of 8 hens, at 33c	2,64
Making a total of	$17,14
From which deduct	9,93
And I have a good balance of	$ 7,21

I do not keep a crower, as I save the cost of keep, and besides, what is a greater advantage, the hens may set several days longer on their eggs without spoiling them for use. I do not raise chickens, I find eggs the most profitable. My stock is the Bolton Grays crossed with the common barn-yard fowl; they seldom offer to set, and can be easily broken up. I do not let them run at large from May to October. I have a yard for them adjoining my barn in which is a hennery made by partitioning off a portion of the bay; it has large windows near the ground, and a southern aspect.

Perhaps the inquiry may be raised if the trouble of feeding and tending should not be charged to them; if so, I reply no, for the pleasure and satisfaction I enjoy from tending them is more than an equivalent for all the trouble. WARFIELD.

North Londonderry, Vt., Jan., 1861.

NOBLE HORSE.—Grant Thorburn says: "I once saw a horse, in the neighborhood of New York, drawing a load of coal, twelve hundred weight, in a cart. The lane was very narrow—the driver, some distance behind, was conversing with a neighbor. The horse, on a slow walk, came up to a little child sitting on his hind quarters, in the middle of the road, gathering up dust with his little hands, and making mountains out of mole hills. The horse stopped—he smelled of the child—there was no room to turn off. With his thick lips he gathered the frock between his teeth, lifted the child, laid him gently on the outside of the wheel track, and 'went on his way rejoicing.' And well might he rejoice—he had done a noble deed."

A LARGE WARMING APPARATUS.—The New York authorities, it is said, have allowed a company to lay pipes through all the streets, to convey "hydrogenated fuel," or other heating agents to every house, just as gas and water are now conveyed. So we move onward.

For the New England Farmer.

CAUTION IN PURCHASING SEEDS OR IMPLEMENTS NECESSARY.

MR. EDITOR:—I perceive that some of Mr. Crandall's Egyptian Corn victims are a little disposed to find fault with the *New England Farmer* for containing such advertisements. Now, without admitting the right of publishers to insert every advertisement offered, I am not disposed to limit them very closely in that class relating to new varieties of seeds, plants, &c., because it is not always possible for them to know whether an article is what the advertisement recommends it to be, and because I think it best to give those who have the disposition and plenty of "tin," an opportunity to try everything, and throw out the chaff, leaving for the rest of us nothing to do, but to take that which proves clean grain. With proper precautions, I think no one need be badly sold, even though surrounded by bogus advertisements, and with your leave, I will give your readers a few words of caution drawn from my own experience and that of friends.

1. Every one who is really able to invest much in anything, not fully proved, is able to furnish himself with information to act understandingly by taking two or more agricultural and horticultural journals, which he should read carefully, and note particularly every article on any new plant, fruit, or fertilizer, in which he thinks of investing, as well as all advertisements, not forgetting the signature, and in this way, a shrewd observer will soon learn to estimate pretty correctly what amount of credence is due to the advertiser for honesty, or to the correspondent for judgment and disinterestedness.

I have found the *New England Farmer, Country Gentleman, Horticulturist* and *American Agriculturist* all very useful in this respect, as well as others, and while they are all first class periodicals, they do not at all encroach upon each other's territory, each one being about as nearly indispensable while taking all the others; the *Agriculturist* would have saved our "Egyptian Corn" friends from being sold, if they had read and heeded it, this particular humbug having been exposed in the number for last March.

2. Never send money to transient advertisers whom you never heard of before, unless recommended by responsible agricultural editors, or others whom you know to be disinterested, and well informed upon the subject in question.

3. Never order anything, however highly praised by the advertiser, if he cannot point to well-known and respectable parties who have tried and are ready to recommend it. It is rare that anything really valuable is offered at the present day, until it has been submitted to the inspection of some one or more persons competent to decide on its merits, and recognized by the public to be such.

4. Take all possible precaution in sending orders, that you send to dealers who are strictly honest and honorable in their dealings. Better apply the rule to all whose advertisements are not entirely consistent and straightforward.

5. If you are not fairly dealt by, when you send orders, give an opportunity to correct the mistake, if it was such, and if this is refused, withdraw your patronage, and report the offender to friends who would otherwise be likely to order from him, and to your Farmers' Club, if you have one.

6. To be sure that the mistake is not with you, and also to have the evidence on your side, it is well, when ordering to any great amount, to write beforehand and ascertain particularly what is to be the quality of your purchase, terms, &c., then, when making out your order, make an exact duplicate, and preserve it, as well as all correspondence on both sides. With some nurserymen when ordering trees or plants, it is necessary to state expressly that you want what you order, or nothing, as otherwise they take the liberty of substituting something else when they cannot furnish exactly what is ordered.

As an illustration of how I apply some of the above rules, when the Chinese Potato excitement first began to rage thoroughly, I received copies of three different editions of a small pamphlet, praising it up beyond all reason, and urging those who wished to make sure of seed, to send immediately, "as first come, first served," and the supply was limited. Now the evident anxiety to sell indicated anything but a scant supply, and of course a want of consistency in the advertiser, and the result proved it a great humbug. The advertisements of that firm I seldom read.

Another nurseryman, a few years since, started a new grape, recommending it as very fine, and offering it at a high price; but neglecting to bring forward any evidence other than his own word, I not only distrusted his "grape story," but dissuaded a friend from buying Norway Spruces of him, on the ground that a man who is dishonest in one thing, cannot be trusted in another. Since then the Massachusetts Horticultural Society have pronounced the grape no better than most of our wild grapes.

Now let every one adopt such rules, and nurserymen will become honest from policy, and such men as Crandall will find their "occupation gone."

WM. F. BASSETT.

Ashfield, April, 1861.

FOOD OF COWS AFTER CALVING.—It is customary with many farmers to feed cows immediately after calving, with warm slops—a pail of bran or meal and warm water, well salted—and a better diet is commenced at once in order to get as much milk as possible. A writer in the *Homestead* objects to this proceeding as contrary to nature, and very likely to induce caked bag and milk fever. He contends that the cow should have rest and quiet, rather than "a dose of physic and warm mashes," as is often given, and adds:

"It is an error to suppose that tasking the stomach after the fatigue of parturition can be otherwise than hurtful. A drink of water and a little dry hay is enough for the first day, and she should have nothing better than the best hay for three or four days—until all inflammatory symptoms are passed."

COLIC IN HORSES.—The *Farmers' Advocate* prescribes for colic in horses, a blanket wrapped around the body and drenched with cold water. It steams like a boiling pot, and cures in fifteen minutes.

THE FARMER AND THE WAR.

As an agricultural editor, our mission is one of peace. It leads us among the quiet avocations of men, into green fields, by the water-brooks, or upon hills teeming with feeding kine,—and in the arts of peace we have labored cheerfully and earnestly, feeling that those labors were productive, and that we were precisely in "the line of duty." But these matters have not engrossed our whole attention. The general politics of the country have been familiar, and its prosperity and glory as dear to us as life itself,—and when it has been defamed by ungrateful and indiscreet men at home, or assailed by its enemies abroad, we have kindled as though our personal honor had been insulted. When our glorious flag, floating over a free and brave people, but unarmed and defenceless, was fired upon by unprovoked, arrogant and rebellious madmen, we were ready for war, as preferable to the then existing state of things.

We believe, (and we possess some *private* evidence of this,) that war has, virtually, been declared against the free States by the leading politicians of the South for more than ten years, and that, during that time, the attacks upon our members of Congress with bludgeons, bowie knives and pistols—the insults heaped upon the New England States, and upon Massachusetts, especially—the hanging, burning and drowning of our citizens while engaged in their legitimate business at the South, and the scourging and *expulsion of women*, who were engaged in teaching their own children, have all been done to gratify a malign hatred, and to precipitate the country into a civil war! As this paper, however, is sent into all classes of our people who hold different political opinions, we have rarely, or never, alluded to the gross outrages committed upon the laws as well as the persons of the free States.

Forbearance, in this matter, has now ceased to be a virtue. The Executive wisely practiced it, until *the people* were ready to rise in their might to repel the assailants, and avenge the insults to our flag.

One spirit, only, now animates our people,——to vindicate the government, and vanquish the traitors. Both objects will be accomplished. Every man is ready to fight, where he can do the most service. No drafting will be necessary. Volunteers press themselves upon the authorities to four times the number that can be received! These are not mere fighting men—but farmers, carpenters, machinists, blacksmiths, engineers, lawyers, scholars, clergymen, storekeepers, physicians, road and bridge builders, printers,—in short, *Freeholders*, who will show the bloody front of rebellion that the men of the North have *courage*, as well as conscience. They will march wherever the national flag is insulted, suppress revolution, and visit terrible retribution upon the rebels.

Our resources in men and provisions are ample, and would have been so in all the munitions of war, but for the stupendous robberies committed by the arch traitor Floyd, and his chivalric Southern allies. They robbed the Exchequer, the arsenals, the mints, and, aided by one worse than all, because a son of New England, Toucey, then Secretary of the Navy—a name covered with loathing and scorn—sent all our national ships into distant seas. Notwithstanding this, the energy and reproductive power of our people will soon supply deficiencies, and the legions that are panting to punish this wicked design upon the best government the world ever knew, may all be supplied as they are called to the seat of war.

The farmer has already shown that it is neither his duty or desire to absolve himself from any of the burdens or perils introduced by a state of war. The thousands of stalwart and intelligent sons who have gone out to fight at their country's call, are sufficient evidence of this. He has another duty, however, scarcely less important, *at home*,—and that is to occupy *as much ground* with the ordinary crops *as he can manure and tend well*. It will be a grave error to do more than this. Some have already recommended that large and unusual breadths of land be sowed to wheat, or other grains, or planted with corn or potatoes. Such advice is as inconsistent as it would be to advise the ship-builder to construct a vessel of such proportions that she could never be floated out of the harbor!

Our advice is this:—Use all the manure you can possibly press into service; prepare it from every source; purchase it, if possible, even at a high rate; use it liberally, especially on the corn crop; cultivate with care through the season, never allowing a weed to grow among the crops, and the result will be a harvest more valuable in every way, than one obtained from a large breadth of land badly managed. On rich river bottoms, or in the West, where fair crops may be obtained without manure, the expanding policy may answer, but it will prove disastrous in New England.

All you can produce will certainly be needed, even if the war should be closed in three months. The demand will be quick, at high prices, and at your own doors. There is no need of alarm on the part of the farmer. No evil becomes so general and destructive as to leave no compensations behind. The withdrawal of 50,000 men from the

labor of the field—men who must still be fed—will require more than the ordinary energy of the husbandman to supply their wants—so that now is the time for the farmer to bring into use every economical means, and by the blessing of Heaven upon his labors, secure an abundant harvest, and find an ample profit in disposing of it as it is ready for market.

The adoption of this course will prove to the farmer one of the compensations of a great evil—and this compensation must continue for a considerable period, for a war of but a single year will so derange affairs as to call a large number from the cultivation of the soil after actual hostilities have ceased.

With the farmer, there is no real cause for anxiety, much less for despondency. While he deplores the evil brought upon us by infatuated and wicked men, he can prosecute his labors with the cheering reflection that he is as effectually sustaining the prosperity and honor of the country, and that his labors are as patriotic and honorable as those of the sons who have gone from their hearth-stones to defeat our enemies. He must consider that the measure of a nation's wealth lies in its labor—in its *reproductive power*—power quickly to supply the waste that war has made; and he will find that power in a wonderful degree in our people.

While our brave soldiers can span rivers with new bridges where the enemy have destroyed former ones, set up and repair locomotives, re-build railroad tracks and navigate ships from under the enemies' guns into ports of safety, the *farmer* will not fail to manifest his energy, skill and patriotism in the cultivation of the soil, to sustain the brave men *who stand by the guns.*

The resources of our country are unbounded—the chief one being in the indomitable will of our people, but sustained by a general knowledge in all mechanism, art and handicraft. The genius and aptitude of the people is wonderful. Nothing has before occurred to call them out in relation to the arts of war, so that our enemies stand appalled at this new manifestation of our skill and resources. Until our country was imperilled and her sons called to arms and the life of the camp, we, ourselves, had no proper conception of the burning patriotism which underlies our peaceful pursuits. But we are *freemen*, the true basis of skill, courage and patriotism, and being free and skillful, we can supply the wastes of war to an unlimited extent, whether they occur in the destruction of crops or through the usual channels of the commissariat.

Be up, then, brother farmers, to the occasion! Stand by your *field pieces* earnestly and resolutely the coming summer. Press every available force into service in tending and securing the crops, and make the earth and the hearts of the people glad with their luxuriance and promise. Let us, then, while others have gone forth to subdue the common enemy, see that the earth yields her increase to sustain her gallant sons.

For the New England Farmer.

"GRAIN FOR SHEEP."

MESSRS. EDITORS:—Under the above head, your Henniker correspondent, "N. M." inquires, "Will oats hurt sheep to feed to them without being ground?" In your remarks you say, "Fed in proper quantities, we believe them admirably adapted to sheep; but all grain must be fed to sheep judiciously." These remarks are sensible, and to the point, and all, indeed, that need be said upon the subject. But as you ask, "Will some of our farmers give you, or us, the reasons why unground oats will hurt sheep?" I answer, as a farmer, it is my experience that unground oats will not only not hurt sheep if "fed judiciously," but do them much good.

My farm is mostly stocked with sheep. I feed them unground grain through the winter,—oats in December and January, half oats and half corn the rest of the winter, with such roots as I have to spare, and never had a sheep hurt by eating oats or corn. My early lambs have a trough of oats where they can eat what they wish, at all times of the day, and will, at four months old, sometimes take a quart each daily, which causes them to "thrive finely."

Several of my neighbors have large and fine flocks of sheep. They feed on unground grain, oats or corn, separate, or mixed, in such proportions as they choose, and any one who will examine these flocks will be well repaid for their trouble, and need no further proof that unground oats are not injurious to sheep. I doubt the economy of grinding grain for sheep, as they masticate their food very thoroughly, and no seed passes them that will germinate.

A flock, to be profitable, should be so cared for, that they will retain their flesh and vigor; but should they, by neglect, become poor and weak, and while in this condition a large amount of any kind of grain be given them, whether it be unground, or ground, it would hurt them, perhaps kill them, as it would a famished man to eat a hearty meal of wholesome food. But "fed judiciously," beginning with half a gill of unground oats per day, and increasing daily for four weeks, at which time they will take a pint, or more, if you have them to spare, they will be all all the better for it.

The only danger of losing sheep fed on oats, according to the above directions, is, that the butcher will make you too tempting an offer to be refused. J. R. WALKER.

Springfield, Vt., April, 1861.

COW BELLS.—It is said that a good cow bell of rolled sheet iron, well made, 10 inches deep, with a mouth 3 by 6 inches, can be distinctly heard at a distance of from three to five miles. It is said that a farmer in England provides all his cows with bells tuned to different notes in the

scale, and the whole running through several octaves. A visitor to this farm is charmed by the music, as well as by the sleek sides of the cattle. Sometimes he hears several notes in unison, then a slight discord, and then a sweet harmony, and all varied by distance and by the rising and falling of the breeze.

For the New England Farmer.

FARMING OPERATIONS MADE PROFITABLE---No. III.

To ——— ———,

DEAR SIR:—In this third communication I shall endeavor to reply to the remaining inquiries of your letter.

4. "I have 30 or 40 acres of land near the buildings which I desire to convert into productive pasture, principally for milch cows. The land is somewhat uneven, but sufficiently level for plowing. It has been impoverished by occasional grain crops, and in the intervals between them by overfeeding with stock. The soil has never been stirred more than four or five inches deep, but the subsoil appears to be pretty good, and tolerably free from stone. How shall I manage to make a good pasture of this tract of land?"

As your land admits of the use of the plow, you can improve it in various ways. In the month of August plow up such a portion of it as you can manage conveniently, turning it about eight inches deep, so as to stir in a portion of the fresh subsoil with the old surface soil. Then sow broadcast 500 lbs. of bone dust per acre, harrow it in, and seed at once to grass alone. By this first-named method the land plowed and seeded anew will not need to be fenced from the remainder not then plowed. Sow only herds grass and red-top in August, but the following spring, as soon as the ground is sufficiently bare of the old snow, and while the surface is filled with little cracks, sow liberally red and white clover seeds. Herds grass, however, is not a very lasting pasture-grass, because when closely fed off the roots soon kill out. Sow but little of it, therefore, and stock more largely with the other grasses. Orchard grass is an excellent pasture grass, bearing any amount of close clipping, and springing up with remarkable quickness and vigor after it has been bitten down. Of late years I have invariably sown this grass when laying land down to permanent pasture. The seed being quite bulky, a bushel and a half is none too much to sow with the other grasses, if you would secure a thick fine sward. It may be sown in August, or at any time of year. Let me remark, by the way, that redtop should not be mixed with the other grass seeds to sow, but should be put on separately, and with a much narrower cast, because the seed is so very light and chaffy that it will not cast off more than about two feet each side of the sower's track, even in the most favorable time for sowing. If it is mixed with other seeds and sown with the usual breadth of cast, you will afterwards see it growing in strips across the field, with spaces between about as wide as the strips, where there is little or no redtop. After plowing in August, you can, if you please, put on a heavier dressing of bone, say 300 lbs., per acre, and sow winter wheat or rye with the grass seeds—the extra dressing of bone in that case compensating the land for a grain crop taken off. If the season is favorable for winter grain, you can get from twenty to thirty bushels per acre and several dollars' worth of straw, besides decidedly improving the land. Bone dust is a sure and quite lasting fertilizer of pasture land, supplying precisely the elements most largely abstracted from the soil by the feeding of it with stock, and especially with milch cows. I know this to be so by personal observation of the effects of bone on my own land. I was much interested in a recent extract in the *Country Gentleman*, on the use of bones as a fertilizer, and having requested my friend, Mr. Brown, to republish it in another column of the *New England Farmer*, I would call your attention to the article.

Another way to improve your land would be to plow it nine or ten inches deep, late in the fall, and in spring manure liberally with compost, broadcast, and then plant it with corn or potatoes. If you have time after harvest in the fall, plow, harrow and prepare the land all ready for stocking down, and very early in the spring sow on grass seed alone. Or, you can plow in the spring and stock to grass with grain. It would of course be better for the land to omit a grain crop; but if present profits must be considered, then take the crop of grain, and you have still an improved pasture. Or another way would be to manure the land one or two years in the hill, as it is called, planting it with potatoes. Then lay it down to grass in the spring, without grain, sowing 500 lbs. of bone dust per acre and harrowing it in before sowing the grass seeds. Or after planting the land a year, to rot the sod, sow 300 lbs. of guano per acre, with a thick seeding of clover, to be the next year turned under as a green crop, and the land in August or first part of September seeded down to pasture. If the land is quite foul with any species of vegetation that it is difficult to kill by simply the smothering process of plowing, then it would be well to plant and cultivate it in hoed crops one year before laying it to permanent pasture. But as a general thing, nicely executed plowing will pretty much kill out the old vegetation. Thorough plowing should be the rule, and if a baulk perchance is made, the team should be at once backed into it and the defective furrow mended. Nothing at all can be gained by the "cut and cover" style of plowing. All these various modes of improving old pastures imply the investment of some capital "in the improvement of the soil itself;" but such investment is indispensable if you would have good land, and is usually more profitable than the purchase of more land to meet the requirements of the stock you wish to keep. The improvement of impoverished pastures is an important part of farming at this day, and it is to be hoped that you will try various expedients yourself for the renovation of such lands, and let us know hereafter, through the *New England Farmer*, the results of your efforts. You can do no more useful service than this to the farming interest of New England.

5. "Can I make profitable use of Peruvian guano, either as a sole fertilizer of land, or as an assistant to fertility on land otherwise well manured, and if so, to what crop or crops can it best be applied, and in what quantity?"

Guano stimulates land in some cases wonderfully, for one or two years after its application, but it does not seem to add staple to the soil, nor

to be sufficiently permanent in its influence to be relied on as a sole fertilizer. It may, however, be used beneficially for some special purposes. For instance, on a loose, dry, sandy or gravelly soil, loath to take grass well, even though well manured for a previous crop, or on other land which for any reason is shy and uncertain in this regard, a superb catch of grass may generally be obtained by sowing 200 to 300 lbs. of guano per acre, and harrowing it in with the grain sowed at the time of stocking to grass. The crop of grain and of straw may also be considerably increased thereby. I have thought in my own practice that such application of guano paid as well as any other of like cost that could have been made. I have already stated that guano may in some cases be profitably applied to stimulate poor land to throw up a bulky green crop, to be turned back into the soil. Instances might be named where its application for this purpose has been attended with satisfactory results.

6. "I have a lowland meadow of 15 or 20 acres, subject to overflow by freshets setting back from the river. Though the flooding usually occurs in spring, yet it sometimes happens in summer or fall, and therefore grass is the only safe crop to raise. The surface of the meadow is nearly level, but in places there are certain slight depressions, and on these portions the water remains so long after the subsidence of the flood that it stagnates upon and chills and poisons the land. Coarse water grasses are therefore the only product. The soil is a deep stiff loam. It appears to me that the flooding of the meadow, together with the sediment brought on, would be beneficial, provided the surface water could be disposed of quickly, or made to pass off with the falling of the stream. Now if I have succeeded in conveying an intelligent impression of the lay and condition of this tract of lowland, will you please advise me how to proceed to make it good sweet mowing land?"

Meadows of this kind usually have more or less descent towards the stream, or in some direction so that the water can be drained off into the stream, though it may not be perceptible to the eye alone. From your description, I judge that the land is made too wet by *surface* water, remaining to stagnate and pass off only by evaporation. The first step is to take an accurate survey of the meadow with levelling instruments, and ascertain where one or two main open ditches can be cut and have a suitable regularity of fall or draught to carry off the flood waters "with the falling of the stream." The fewer ditches you can have, and yet get rid of the water, the more convenient will be the after tillage of the land. Do not depend at all upon the eye alone, but take your measurements by the aid of levelling instruments, and then you will know accurately the lay of the surface and where to locate ditches so as to be able at once to secure successful drainage. To get the water off to the river, the ditches may perhaps have to pass through a swell or portion of land somewhere higher than the general level of the meadow; but do not let that discourage or foil you in the attempt to drain the land, for you have only to cut the ditches deeper there, and correspondingly wider on top, so as to give the proper slant to the sides to prevent them from caving in. A slant of forty-five degrees will be best. You might have a few models made of lath or light scantling, the models being of the right width for the bottom of the ditch, and the sides of them slanting or flaring out at an angle of forty-five degrees, and set occasionally into the ditch; they will guide the workman in giving the right shape to their work. The earth taken out in making the ditches would well pay for hauling off to compost with manure for some upland field of a dry, open soil. Perhaps portions of it will came handy for levelling up some depressed places in the meadow.

After completing the ditches, and the land has dried off sufficiently to permit of plowing it, you can any time in the season previous to about the first week in September, plow as much of it as you can at one time manage. I should think it had better be plowed certainly as much as nine or ten inches deep, so as to bury the old sod thoroughly, and kill its roots. Perhaps it would be still better to plow a foot deep. Possibly at some time previous to seeding the land to grass, you can fill some of the worst depressions handily by plowing off the nearest knolls or crowning places, and moving the earth thus loosened into the sunken spots with the ox scraper. That, however, depends upon circumstances of which you can best judge. The sod and subsoil plow will make the best tillage, provided the sod is not too rooty and stubborn to allow of the use of the little skim or leading plow. If the sod is too much for the skim plow to contend with successfully, then a large powerful breaking-up plow of the flat furrow sod kind, drawn by four or six oxen, will be best. Be particular in plowing to get the old swampy vegetation all under, lest otherwise it should grow up again, to the injury of the new seeding. Spread fifteen or twenty loads of compost per acre, made of manure and good upland loam, and harrow it in. Then sow a half bushel of herds grass and a bushel of redtop seeds per acre, and pass a bush or light roller over the land. It will be desirable to seed the meadow as early as the first half of August, or even in July, if it can then be attended to, for that will give the young grass time to get firmly rooted before the winter or spring floods come on, so that it will not be likely to be killed by the overflow.

If you can procure seed of the fowl meadow grass to sow, that would be the very best grass you could raise on this meadow, judging from your description of the land. It yields a very thick and heavy swath, and superb quality of hay, and is very lasting in the land, provided it is not cut too early. The occasional flooding of the land would be highly beneficial to this grass, as it delights in a moist, but not wet soil. As yet the seed can be obtained in market only in limited quantity; but it is to be hoped our seedsmen will be able to secure larger supplies ere long. It is one of the anomalies in farming, that fowl meadow grass is so little cultivated. I am informed that the seed comes to market more or less at Portland, Me., and that there are meadows in the vicinity of Dedham, and in other portions of eastern Massachusetts, where the grass grows in considerable quantities, spontaneously, I often see it in the intervales bordering our streams in Vermont. The seed can usually be procured in small quantities of the Boston seedsmen. It closely resembles redtop in the form of its head, and shape of the seed, but the color of the head is paler than redtop, while the bottom foliage is of a deeper green hue, and yields a much finer quality, and thicker and heavier burden.

Having drained the meadow perfectly, and stocked it down with the cultivated grasses, you can probably keep it in good grass by occasional top-dressings of compost. Or, if after a time the wild grasses come in too much, you have only to plow in August, manure, and re-seed as before. Thus you will doubtless make the meadow very valuable grass land.

7. "I have, in another place, a few acres of what is called bog-meadow, which I wish to improve for mowing land, it being desirable to make all the hay I can for winter use. This piece of meadow was imperfectly drained years ago, but the muck being in some places quite deep and the cultivation difficult, the productions have now become mostly the coarse water grasses. I have already drained the meadow thoroughly, cutting off the springs that flowed in from the higher land. I now wish to introduce upon it a better quality of grass. How shall I manage to convert this land into good mowing by the quickest process?"

The imperfect drainage of the meadow, heretofore, made it difficult of cultivation, and led to the ultimate supremacy of the water grasses. The first important operation in order to tame the land, is to drain it completely, which you say you have already done. The next thing is to plow it, which can generally best be done in August, or near that time. Turn the sod over eight to ten inches deep, so as to effectually smother the wild grass, and have a plenty of loose soil on top, to convert into a mellow seed-bed. For this purpose you will need a large plow, rigged expressly for such work. You can do nothing at all effective and satisfactory towards the subjugation of your meadow with a common green sward plow. The bog-meadow plow is rigged with a wide steel-edged share, having a sharp cutting edge, and kept so during use, by frequent applications of a file, so as to cut the wild grass roots completely to the extent of the entire width of the furrow-slice, and thus permit it to turn over surely. You cannot turn the boggy sward unless its roots are severed on the under side of the furrow-slice; if a portion of them are left uncut, they will pull the slice back into its original place again in spite of you. The best modern plows, for such land, have a circular cutter, of steel, attached by its axle to a shank or stem of wrought iron, which is clasped to the plow-beam in the same place and manner as a common cutter; and the circular plate of steel, revolving like the wheel at the end of the beam, makes a clean, effective incision, cutting the slice surely from the main land, and rendering it impossible for the sod to peel and roll up in large masses, as it is wont to do before a common cutter, because the revolutions of the circular cutter naturally hold the turf down in its place while being cut. The bog plow has a large side wheel to guage the depth of furrow, and having a wide rim to prevent it from rutting into the spongy sod. Then, too, the plow has a draft rod of iron, passing through a clevis on the end of the beam, of such construction as to admit of very wide variations in the landing of the plow, so that the point of draught, where the chain or evener is hitched to the plow, may be swung to the left, or landward side of the beam, as much as twelve inches, or any distance less than that which the particular case may demand. Thus the entire team may be allowed to walk upon the sod or unbroken land—the off oxen or horses travelling in about the place the near ones would, if the team were attached to the plow by the common hitch. This line of draught may be so nicely adjusted, that while the off oxen travel on the unbroken sod, the plow will nevertheless run perfectly true and natural in its work. It is an arrangement quite essential in plowing all such deep, mucky meadows as yours, where the off oxen would mire to their bellies if compelled to travel in the soft furrow. I have seen bog-meadows superbly plowed in this way, the plow turning furrows two feet wide, and laying them in side by side so truly, as to completely bury the swamp grass, and present a clean surface for cultivation. In bog-meadow plowing, a very wide furrow-slice will turn more surely and perfectly than a narrower one, provided you have a wide-cutting share, because the weight of the wide slice itself helps materially to carry the sod over after the plow has cut it, and raised it from its bed.

Having plowed the land, you can perhaps plant and cultivate it a year or two, or you can stock it to grass at once. I notice that you say you wish "to convert it to good mowing, by the quickest process." Perhaps you can hardly get on to the meadow with loads of manure immediately after plowing—though a few years hence, if it is kept well drained meanwhile, it will become sufficiently dry and settled down together, to allow of that. If you can cart over the land as soon as it is plowed, then spread about thirty loads of compost per acre, made of one-third part manure, and two-thirds good upland loam, harrow it in, and seed to grass—sowing a half bushel of herds grass and a bushel of redtop per acre, or, what is better, if you can get it, one and a half bushel of fowl meadow seed per acre. But if you cannot get manure on to the land in August, or have none to spare for it, sow say 500 pounds per acre of guano or superphosphate of lime, harrow it in, and sow the grass seeds, and that dressing will stimulate the grass to take root well, make a vigorous early growth, and choke down wild stuff. Two years afterwards, you could top-dress with a compost of loam and manure. Or you can plow and prepare the land in August or after, and as soon as the ground is frozen, cart on and spread the compost manure, and sow the grass seeds on the manure. It is quite customary, where bog-meadows are too soft and loose in texture to admit of much tillage, or to take to tame grasses well, to cover them with a coating of an inch or more in thickness of loam or fine gravelly subsoil, carting it on to the meadow when the land is sufficiently frozen to bear up the team. On top of that a dressing of compost manure is spread, and grass seeds are sown on the manure. This coating sweetens and gives body and consistency to the surface soil, and for several years promotes a large growth of the tame grasses. But bog-meadows differ considerably, partly from natural texture and partly from the condition arising from superficial or very complete and thorough drainage. I could point you to several bog-meadows that have been reclaimed with complete success without the expense of a coating of loam or gravel. I have now in mind a meadow, embracing about sixty acres in one body, that has all been reclaimed to excellent mowing land without such coating, but with the application in December of thirty loads per acre of compost made of manure and upland loam. Not having seen your

meadow, I cannot precisely say which particular method you should adopt in stocking it to grass; but your own judgment will guide you as to that. I should presume that inasmuch as your land was partially drained years ago, it cannot now be very soft or difficult of tillage. If, a few years after you have laid it down, the wild grasses begin to predominate, the land may need to be plowed and seeded anew. But if the tame grasses hold possession mostly, then an occasional top-dressing of compost will enable the land to give you a good burden and quality of hay.

Thus, my] friend, I have at length answered your questions as well as I could from such statements as you have given me, and without a personal knowledge of your land. If there are any points that I have not made plain, or if in any particular I have failed to understand the condition of any field or thing you have brought to my notice, another letter from you relative to such matters shall receive attention.

F. HOLBROOK.

Brattleboro', March 26, 1861.

For the New England Farmer.

PLEA FOR THE BIRDS.

The spring, the beautiful spring, has come again! and with it our cheerful little friends, the birds. We hope, that during the present season, no person, young or old, will show his want of humanity and good sense, by killing any of these innocent creatures; for they not only cheer and refresh the heart with their sweet music, but do an immense amount of positive good, by destroying, annually a vast number of insects, which are injurious to vegetation. Will not the farmer have a care for his pecuniary, if not for his moral interests, by preventing his sons, and others, from prowling over his lands for the purpose of shooting birds? When will men, generally, become intelligent lovers of nature, and learn to appreciate all the blessings of Divine Providence?

S. L. WHITE.

South Groton, March 28, 1861.

CORRECTIONS.—In your notice of the meeting of the Legislative Agricultural Society, on Monday evening, April 1, I am made to say that "In New England, the number of cows is 180,000." This is a mistake. Massachusetts is entitled to that number, while in New England there are over 700,000. R. P. WILSON.

In your monthly journal for April, just received, I am made to say, page 168, the pasture was *not* as good; the word *not* I did not use. I said the pastures on the farm, on which I was born, and labored for twenty years, were *as good* as any in the eastern section of the State. I am the more anxious to have this correction made, as your paper deservedly has a permanency of character, not often met in the multiplicity of publications of these days.

I admire the analysis of the New York Transactions for 1859. I wish our own Board of Agriculture would annually put forth a volume of equal value; I have seen none at all for the last year. J. W. PROCTOR.

April 5, 1861.

For the New England Farmer.

HORSE POWERS.

Leominster, April 2, 1861.

MR. GAY,—*Dear Sir:*—I saw the description of a one-horse power for thrashing, sawing wood, &c., in the *N. E. Farmer*, recently by you. Will you do me the kindness to tell me where I can procure such an one, and the cost of same? Also what kind of a thrasher you use, and whether your machine cleans the grain at the same time? Again, in regard to sawing wood, would not the extra fixings necessary to attach the cutting off saw to the horse-power, cost as much as a circular saw? My thrashing was done last fall with a two-horse power, and I am confident that it cost more than to have had it done with flails.

I am very desirous of adopting some plan whereby I can save some of those hard knocks of the flail and beetle, which you seem to have obviated by your machine. I was very much pleased with your method of doing these hard jobs, as described in the *Farmer*, therefore I thought I might "go and do likewise."

If you will answer the above questions you will confer a great favor on a brother farmer.

EMORY BURRAGE.

B. W. Gay, Esq., New London, N. H.

New London, April 8, 1861.

MR. BURRAGE,—*Dear Sir:*—Your letter was duly received. If my article on a one-horse thrashing machine has been of benefit to any one, I am well paid for writing it, for this reason, that I think farmers might and should be a mutual assistance to each other.

Answering your questions: 1. There is a shop in the town of Sunapee, about ten miles from here, where both one and two-horse thrashing machines are manufactured extensively, for sale or to order.

2. My machine cost, when new, one hundred and twenty-five dollars, but I think they can be bought for a great deal less now.

3. The cylinder of my thrasher is two feet long with teeth projecting three inches, instead of two, as in most of them.

4. This machine does not clean the grain, as there is not power enough in one horse to drive a thrasher and winnower at the same time, without making slower work than a two-horse machine. I think it cheaper to thrash, and then winnow when most convenient.

5. I think the "extra fixings" for the saw will not cost much more than one-half as much as a circular saw. I made all the fixings, except the platform on which to lay the logs, and hung the saw (which is less than a day's work,) for one of my townsmen last week, in three days. A few feet of plank and a few bolts are all that are necessary to make it.

If I can be of any further service to you I shall be happy to oblige you. In my description of this machine in the *Farmer* the printer makes me say "three of these" whereas, it should read "three feet of this end of the sweep should be eight inches wide."

I return your letter, and, if you please, would like to have you send both that and the reply to the *Farmer* for publication, that others may, perhaps, be benefited. B. W. GAY.

Emory Burrage, Esq., Leominster, Mass.

For the New England Farmer.

BERKSHIRE CHEESE.

I read with much interest the remarks made by Mr. Tower, of Berkshire, at one of your agricultural meetings, as published in the weekly *Farmer* of March 2d. I have often heard the cheese of this county and of Worcester highly spoken of, and should like to know how it is made. Can you inform us through the *New England Farmer*, and oblige many readers of your excellent paper in northern Vermont, where the dairy business is becoming a leading interest.

Derby, Vt., March, 1861. B. F. FLETCHER.

REMARKS.—The farmers of Worcester and Berkshire counties very justly pride themselves upon the character and fame of their cheese. In the report of the Worcester Committee on Cheese, for 1859, it is expressly acknowledged that this reputation is public property of great value, which they say ought to be cared for, and increased by public and private effort.

In 1854, the State Society offered the Berkshire County Agricultural Society three premiums of seventy-five, fifty and twenty-five dollars, for the three best dairies that should exhibit their productions, and answer the interrogations accompanying the proposition.

A committee, headed by Mr. Tower, were appointed by the Berkshire Society to award these large premiums, which were finally paid to Mr. J. D. Northrop, of Lanesboro', Mrs. G. W. Lincoln, of Cheshire, and Mr. Henry Dresser, of Stockbridge, all of whom made written statements, which were published.

So far as any manufacturing operation which requires great skill, much practice, and nice attention to numerous details, can be communicated by written description, we believe these statements give information as to the process of cheese-making in the best dairies of Berkshire county.

In reply, therefore, to friend Fletcher's request, we copy the statement of Mrs. S. W. Lincoln, of which Mr. Tower says, in his report on awarding the premiums, "we think her recipe for making cheese as good a one as we have ever met with, and worthy of commendation."

Manner of making Cheese.—"The milk at night is set in tubs; and if the weather is warm, coolers are set into the milk, filled with cold water or ice. In the morning the cream is skimmed off, put into milk and warmed, and then mixed with the night's and morning's milk, and warmed by pouring in hot water, to a temperature of eighty-six degrees. Rennet is then added, sufficient to produce a thorough coagulation; then, in about forty minutes, the curd is cut into fine square pieces, and remains until the green whey begins to rise; then it is broken up with the hand. This operation is performed with great care, letting the curd pass gently between the fingers without squeezing it in the hands, as that would decrease the quantity of cheese. After settling, a quantity of whey is put into a kettle and warmed, and put into the curd, making it ninety-five degrees warm. The curd is again broken, the whey heated and put into the curd, so that the heat will be raised to one hundred and six degrees. It then remains, being stirred occasionally, until the curd becomes elastic, and, as old cheese-makers say, "squeaks between the teeth." Then the whey is again drawn off, the curd cooled with cold water, and then salted with a tea-cup full of salt to sixteen pounds of cheese. It is then pressed twenty-four hours, being turned over in the time, and then removed to a cool dairy-room, greased, colored according to fancy, and turned every day until cured."

For the New England Farmer.

STRAW HIVES.

The telegraphic notices that have kept the public in a state of confusion for the last few months, are not more conflicting than are the statements and opinions of professed bee-keepers touching the management of bees, and the best hives to be used. I know of nothing connected with rural economy upon which so much self-conceit and ignorance has been expended. Simple as are the habits of the honey-bee, volume after volume has been written upon it, while the various periodicals and newspapers have contributed their share of attention to the supposed mysteries of bee-keeping. Intimately connected with many of these books, and following closely in their wake, comes the vender of patent rights and hives. In my opinion, as a class, (and I have seen something of them,) a more unreliable set of hawkers never preyed upon the public. Complain of the bee-moth and cold winters as much as you please; where one swarm dies from either of the above named causes, your patent bee-trays kill thousands. I have still fresh in my memory a remark made to me by a very sensible old farmer and bee-keeper, who, when asked to look at a patent hive, did not object to examining it, but said that if he had given every man that had come to him with a patent hive, ten dollars, and then kicked him and his hive out of doors, he should have been better off. I certainly am not so much prejudiced that I cannot see any good in a hive, merely because it is patented. On the contrary, I think well of the Langstroth hive, consisting as it does simply of a box and suspended frames. I cannot see any thing about it that interferes with the natural habits of the bee. It enables the intelligent apiarian at all times to know the condition of his stock, to regulate his swarms, and in fact, reduces bee-keeping to a very simple pursuit. There are several modifications of this hive patented by various individuals, but all that is good about them, is taken from Mr. Langstroth, and by no means an improvement on the original. Among the most conspicuous of these, and perhaps the worst of them all, is one by Mr. Kidder, who seems to have a very awkward way of

claiming other people's ideas and property, and if the following couplet was not written for him, it is not the less appropriate:

"The part you stole I like the best—
Go on, good Sir, and steal the rest."

The two best works on bees are undoubtedly by Mr. Langstroth and Mr. Quinby, but neither of these are just what is wanted by the farmer and the mechanic. They require a plain, simple, practical treatise, with all theories and speculations left out. Mr. Quinby or Mr. Langstroth, might write such a book, and yet I fear, when Mr. Langstroth becomes fully aware of the thieving propensities of Italian bees, he might stop to lecture them on their bad habits; while Mr. Quinby would guess too much to suit people who want to know plain and simple facts.

The number of patent hives is very great, amounting to some hundreds. I had supposed that every possible idea had been used up by the patentees, but it seems that I am mistaken. Judging from an article in your paper of the 13th, it would appear that a new and fruitful field is to be opened for patent hives, and Mr. Quinby, who has hitherto had a holy horror of patent hives, now summons to his side the innumerable host of inventors. He assures us, that he has, at the present time, a straw hive, adapted to improved bee-culture—and if he cannot get a better one, he will shortly give us a description of it. Before the country is deluged with these new patent hives, I should like to look into them, and see in what the advantage, if any, consists. Mr. Quinby says "that they are warmer in winter, and cooler in summer." I will leave this assertion for some future occasion, still satisfied in my own mind that it is like the Irishman's grog, that kept him warm in winter, and cool in summer, and was good at all times. Again, it is said "that the straw hives absorb moisture as generated by the bees, and save the bees the warmth they have generated." If this is true, its author has added a new chapter to the philosophy of heat and moisture. I had supposed that where a body was sufficiently porous to allow moisture to pass freely through it, that there was a good deal of danger, that any amount of heat inside of such an enclosure would be likely to go the same way. I have read a great many wonderful things about bees, and am disposed to consider them a marvellously interesting little people, and if they have led to the discovery of so important a matter as the separation of caloric from steam by means of straw, they have an additional claim upon our attention. Place a swarm of bees in a straw hive, and they will do very different from any bees I have ever seen, if they do not line the inside with propolis, a substance impervious to air and moisture. If this be true, (and I hardly think Mr. Quinby will deny it,) the supposed advantage of the straw hive must be sought for in another direction. I beg to suggest, that among the many disadvantages, some advantages are to be found in the straw hive; first, as a general thing, no boxes are used, and the bees are not ever robbed of their stores; second, the conical, or dome-like shape of the hive, lined as it is with propolis, being cooler than the air within, the moisture condenses, and runs down the side of the hive, instead of collecting as it would on a horizontal surface, and dropping down among the bees and comb. The advantage of the straw hive is so connected with its shape, that when used in a square form, it will be found of little or no value. Again, "bees in straw hives, swarm ten days earlier." This statement is not confirmed by many who have the straw hive side by side with wooden hives, where no boxes are used to obtain surplus honey. Mr. Quinby says that the best material for a hive is *straw*, and that he has clearly shown it. This is not so clear to me. I am by no means sure that there is any real advantage in the straw hive. Certainly not, if the form is to be changed. It is with some reluctance that I differ with Mr. Quinby. My first ideas of bee-keeping were derived from him, and I might still have regarded him as undoubted authority, had not accident thrown in my way the Langstroth hive, by which I learned more in one season than I should have found out in a life-time by using the twelve by fourteen box hive. As it is, I trust Mr. Quinby will not blame me, if I am not tickled with his straws.

Winchester, May 4. E. A. BRACKETT.

For the New England Farmer.

REMEDY FOR TAPE WORM.

MR. EDITOR:—In one of the *Farmers* not long since, there was mention made of the tape worm, which brought to mind a statement made by one of my neighbors, a Mr. B., who is considered as good for truth as any other man. The statement was, that when he was a boy, his health was very poor, people thought him to be in a consumption, that his food seemed to do him but very little good, and the smell of victuals often caused him to vomit. He told his mother one day that he was sure that it was worms that caused his illness, upon which his mother went and got a handful of dried wormwood, and burned it, took the ashes and mixed them with molasses, and told him to eat as much as he had a mind to. He commenced and eat of it freely that day, and part of the next day, when all at once he felt something give way in his stomach, which caused him to retire, when to his surprise he discharged a tape worm which measured between two and three yards in length, besides several other long, round worms. That the molasses and ashes of wormwood did not agree with those long fellows, was evident from the fact that the monster tape had become spotted about one-third of his entire length. HIRAM BALDWIN.

Williamsville, Newfane, Vt., 1861.

CRANBERRY PLANTS.—Mr. F. E. BRUMMIT, of Walpole, has forwarded a letter to us, to send to "N. P., North Providence, R. I.," who inquired through the *Farmer*, May 11, where he could obtain cranberry plants. We know not who "N. P." is. If correspondents would put their names to articles they send—especially when they make inquiries—they would succeed better in their efforts, and it would save us some trouble. We have several letters now on hand, which we are requested to send to persons whose address we do not know.

RURAL ARCHITECTURE.

A DISTRICT SCHOOL-HOUSE, BY GEO. E. HARNEY, LYNN, MASS.

DESIGNED AND ENGRAVED EXPRESSLY FOR THE NEW ENGLAND FARMER.

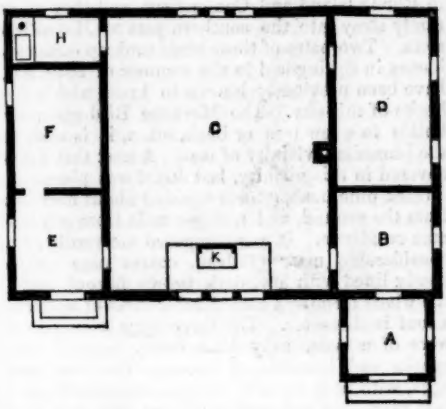
Any one at all familiar with New England villages, must have noticed what a cheerless, unsightly looking building the District School-House usually is, standing, as it often does, at the intersection of two or three country roads—a mile perhaps from any habitation, so that it be in the exact topographical centre of the District, prominent, bare, and "all out of doors"—with its four yellow ochre sides and its leaky hipped roof; its battered door and its broken windows; without a tree to shelter it; without a shrub or a flower to beautify its grounds, or a vine to hide the nakedness of its walls. In fact, it has become a proverb among us, that the school-house is always "the worst looking building in the whole neighborhood."

While our dwellings, our houses of worship, our public town-buildings even, have, in a measure, yielded to the spirit of improvement, the District School-House—the most important of them all—is still, in most instances, suffered to remain the same ugly, uncomfortable, ill-contrived structure that it was years ago, when our fathers were accustomed to try the effect of their jack-knives upon the pine wood of the benches and seats. And yet, by the exercise of a little taste, the same building, with no more expense, may be rendered an ornament rather than a blot upon the landscape.

It is, moreover, highly important that a child's first impressions of the school be of a pleasing nature, for upon that will depend, in a great degree, the success of all his after schooling. Hence the building itself should be made attractive, of correct architectural design and proportions—sufficiently ornamented to indicate its character and uses—well planned, and having all the modern appliances for the comfort and convenience of the scholars—the grounds neatly laid out, with gravelled walks, hedges and shrubs, trees and flowers, grass plots and play grounds—and the whole situated in some retired spot away from the dust of the highway.

In the accompanying design we have attempted an improvement like the above in the appearance and accommodations of such buildings. The perspective view shows the style and general character of its exterior; separate entrances for boys and girls; a large window in front lighting the school room; and a ventilator on the ridge of the roof. The view also indicates the position and effect of the shrubbery and trees and paths; the vines trailing over its sides, and the vase in front filled with myrtle. The plan shows the position and relative size of the rooms. A is an open vestibule or porch, seven feet square, shielding the entrance to the girls' apartment. The interior finish of this porch is carried up into the roof,

where the timbers are left to show from beneath, being planed and chamfered off, and painted or stained like the rest. During the winter it will be well to hang a couple of doors in the opening, making thus a close vestibule of it, and keeping out the wind and snow. B is the girls' entry, nine feet by ten, furnished with a couple of rows of iron hooks for clothing, a couple of shelves for baskets, &c., and a fixed stand for umbrellas, with a tin pan in the bottom to receive the water.



C is the school room, a pleasant and airy apartment twenty feet long, twenty-five feet wide, and ten feet high at the sides, and fourteen in the centre of the room, well lighted by two triple windows with double hung sashes, and with means for thorough ventilation, and the preservation of an equal temperature at all times.

It has seats and desks for about forty pupils, besides recitation benches, and a raised platform and desk for the teacher.

A great improvement has been made in School furniture within a few years—the era of pine benches and slab seats has long since gone by, and in their place we have easy, comfortable chairs, and desks and shelves for books and slates, and conveniences for writing and drawing attached. They are made of hard wood, principally birch or cherry varnished—with cast iron supports of graceful patterns, firmly secured to the floor of the school-room—and embrace a variety of sizes for scholars of all ages, from four to twenty.

The following scale from "*The Guide*," a circular published by S. Wales, Jr., School Furniture manufacturer, Boston, shows the height of seat and desk required for scholars of different ages:

Age.	*Manufacturer's Number.*	*Height of Desk Next Scholar.*	*Height of Chairs.*
4 to 5 years.	No. 1	20 inches.	10 inches.
5 to 6 "	" 2	21 "	11 "
6 to 8 "	" 3	22 "	12 "
8 to 10 "	" 4	23 "	13 "
10 "	" 5	24 "	14 "
10 to 12 "	" 6	25½ "	15 "
12 to 14 "	" 7	27 "	16 "
14 to 20 "	" 8	28½ "	17 "

The above are made in a variety of styles, and are furnished single or in pairs, the latter—a double desk and two chairs—being the most popular, and costing from five dollars to six and a half dollars a set. For primary schools, Mr. Wales manufactures three sizes of small arm-chairs without desks, but with small cast iron cases at the sides for books; each chair, based on an iron pedestal securely fastened to the floor of the room, thus becoming a permanent article of furniture, and completely avoiding the noise and confusion which accompany movable chairs.

K, on the plan, indicates the position of the teacher's desk. On the right of the school-room is a room, D, used for class recitations. It measures ten feet by fifteen and a half, and is well lighted and ventilated. A row of settees surrounds three sides, and an assistant's desk and table occupy the fourth.

E is the boys' entry on the left of the school-room, fitted like the girls' with hooks and shelves for clothing, umbrella-stand, etc. Beyond it is the wood-room, F, nine by twelve feet. H, small wash-room, with pump and sink, with closet under, and conveniences for washing, brushing, etc.

The attic floor—quite small, the central portion being mostly included in the school-room—is approached by a ladder from the wood room, and may be used as a store room for spare furniture.

Construction.—This building is to be built of wood, and covered in the vertical manner, the joints battened with heavy battens. The trimmings, door hoods, ventilator, etc., should be executed in a substantial manner, of heavy stock, and the whole painted in three tints of a color between a drab and a brown, the main walls being the lightest, the trimmings the second tint, and the slats of the ventilator, recesses of the openings and the base and steps the darkest tint. The interior finish of all the rooms except the wood and wash rooms is to be a wainscoting, three feet high all around, with a base and a cap moulding. Above this the walls are to be lathed and plastered, and in the school and recitation rooms, *black* plastered, three feet above the wainscoting, with a moulding between it and the white or tinted wall above.

All the wood work is to be oiled and varnished, showing its natural color and grain, the windows glazed with the best quality German glass, and the sashes drawn bronze green. All the windows should have inside blinds, oiled and varnished. The chimney breast should be wider than it is shown on the plan, to admit of a ventilating box at its side.

Built in the above simple manner this structure would cost from nine to twelve hundred dollars, varying according to the quality of the finish and the location.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 12.

THRUSHES.

Wilson's Thrush or Veery—Mocking Bird—Brown Thrush—Cat Bird.

The VEERY, or WILSON'S THRUSH, (*Turdus Wilsonii*, Bonap.,) is a common inhabitant of the moist woodlands and dense solitary swamps of many parts of New England, and is said to inhabit the whole United States, and northward to the 57th degree of latitude; and in all this extensive region is rarely met with in other than quite retired situations. Here, "especially after sunset," to quote the well-chosen words of an agreeable writer in the *Atlantic Monthly*, (December, 1858,) "he pours forth his brilliant and melancholy strains with a peculiar cadence, and fills the whole forest with sound. It seems as if the echoes were delighted with his notes, and took pleasure in passing them round with multiplied reverberations. I am confident this bird refrains from singing when others are the most vocal, from the pleasure he feels in listening either to his own notes or to the melodious responses which others of his own kindred repeat in different parts of the wood. Hence he chooses the dusk of evening for his vocal hour, when the little chirping birds are mostly silent that their voices may not interrupt his chant. At this hour during a period of nine or ten weeks, he charms the evening with his strains, and often prolongs them in still weather till after dusk, and whispers them sweetly into the ear of night." Likewise at the early hour of dawn he welcomes the rising sun with his enchanting song, and through the gloomy days when the murky clouds distil their refreshing moisture upon the thirsty earth, and most songsters are mute, his melody enlivens the dripping woods; in the brightness and fervor of midday he is generally quite silent. The song of the Veery is peculiarly attractive and beautiful, composed of many trilling, liquid notes, hard to describe, yet warbled out in such a succession as to perfect harmony and captivate the ear.

The Thrush is quite shy, especially while engaged in song, and is seldom seen outside of the woods. It builds its nest on or very near the ground, of withered leaves, fibrous roots and grass, and lays four or five eggs, precisely like those of the Cat-Bird in shape and color. It appears regularly from the South in considerable numbers early in May, and retires in September.

This species is ten inches in length and twelve in extent. Color above, tawny brown; beneath, white, tinged slightly with ash under the wings; breast, cream color, marked with pointed spots of dark brown.

In the genus *Orpheus* of Swainson, are placed several of the American Thrushes, differing from the tree Thrushes in their more elongated form, chiefly produced by the comparatively greater length of the tail, and in the shortness of the wings. The MOCKING BIRD (*Orpheus polyglottus*, Swain.,) is probably the most remarkable in the extent and variety of his vocal powers, of all musical birds; besides having a song of its own rarely equalled, it possesses the power of imitating the notes of all other birds with surprising accuracy, and even the peculiar cries of quadrupeds, and the creaking of inanimate objects. It is a bird peculiar to the continent of America and its adjacent islands, and inhabits a large breadth of country, being found on both sides of the equator, from Brazil in the southern hemisphere northward to the States of New England in the northern. In the southern parts of the United States they are resident, as Wilson observes, and appear half domesticated and familiar, while in the Northern States they are migratory and quite shy. To the north of the Delaware river they are said to be much less numerous than to the southward of that river; many pairs, however, are found to breed in the State of New York, a few in Rhode Island and Connecticut, and they more rarely stray into the southern part of Massachusetts. Two pairs of these birds took up their residence in Springfield in the summer of 1860, and have been previously known to breed within the limits of this city. The Mocking Bird generally builds in a low tree or bush, often, it is said, in the immediate vicinity of man. A nest that I discovered in this vicinity, last June, was placed in a thick pine bush, (*Pinus rigida*,) about four feet from the ground, and nearly a mile from any human residence. It was composed outwardly of a considerable mass of dead, coarse pine twigs, neatly lined with fine, dark brown fibrous roots, the whole forming a considerable mass of upwards a foot in diameter. The three eggs it contained were of a pale, ashy blue color, marked with specks and blotches of brown. The nest and eggs, with both the old birds, were secured as a rare prize, and are now carefully preserved in a cabinet.

The Mocking Bird is occasionally seen in the Northern States in cages, and in a state of confinement astonishes and amuses all listeners with its admirable and precise imitations of all the feathered songsters within hearing. "In his domesticated state," says Wilson, in his original and inimitable description of this bird, "when he commences his career of song, it is impossible to stand by uninterested. He whistles for the dog—Cæsar starts up, wags his tail, and runs to meet his master. He squeaks out like a hurt chicken—and the hen hurries about with hanging wings and bristled feathers, clucking to protect her injured brood. The barking of the dog, the mewing of the cat, the creaking of a passing wheelbarrow, follow, with great truth and rapidity. He repeats the tune taught him by his master, though of considerable length, fully and faithfully. He runs over the quiverings of the Canary, and the clear whistlings of the Virginia Nightingale, or Red-Bird, with such superior execution and effect that the mortified songsters feel their own inferiority, and become altogether silent, while he seems to triumph in their defeat by redoubling his exertions.

"This excessive fondness for variety, however, in the opinion of some, injures his song. His elevated imitations of the Brown Thrush are frequently interrupted by the crowing of Cocks; and the warblings of the Blue Bird, which he exquisitely manages, are mingled with the screamings of Swallows, or the cackling of Hens; and amidst the simple melody of the Robin, we are suddenly surprised by the shrill reiterations of the Whip-poor-will; while the notes of the Killdeer, Blue Jay, Martin, Baltimore, and twenty others, succeed with such imposing reality, that

we look around for the originals, and discover, with astonishment, that the sole performer in this singular concert is the admirable bird now before us. During this exhibition of his powers, he spreads his wings, expands his tail, and throws himself around the cage in all the ecstacy of enthusiasm, seeming not only to sing, but to dance, keeping time to the measure of his own music. Both in his native and domesticated state, during the solemn stillness of night, as soon as the moon rises in silent majesty, he begins his delightful solo, and serenades us the livelong night with a full display of his vocal powers, making the whole neighborhood ring with his inimitable medley." The native notes of the Mocking Bird considerably resemble those of the Brown Thrush, but are readily distinguished by their greater rapidity, sweetness, energy and variety.

The Mocking Bird is nine and a half inches in length, and thirteen in extent. Above, plain brownish ash, the wings and tail black, the primary coverts of the former tipped with white, also a white space on the primaries; two exterior feathers of the tail white, and the rest, except the two middle ones, broadly tipped with pure white; beneath, brownish white; iris, pale yellow.

The BROWN THRUSH or BROWN THRASHER, (*Orpheus rufus*, Swain.,) also known as the *Red Mavis, Long tailed Thrush*, &c., is a common and well-known species inhabiting from Mexico to Canada. He arrives in New England from the South about the end of April, and, to all lovers of rural song and scenery, is a welcome visitant to our hedges and skirts of woods, in which he takes up his residence, and is well entitled to protection at the hands of the farmer. During the months of May and June he is continually piping his well known and justly-admired song, from the tree-tops of the thicket or hedge, occasionally, when undisturbed, approaching the farm-house, and from the top of a tall tree in the garden or orchard, often within a stone's throw of the farmer's door, continuing his musical lay for hours of a dewy morning or towards nightfall. Yet he is sometimes guilty of scratching up a few grains of newly-planted corn, or of purloining a few currants or cherries from the garden, and on this account is often unmercifully persecuted by boys who have acquired a thirt for "sporting" and are eager to practice their skill at destruction even on the most trivial excuse. The Brown Thrush destroys great quantities of those grubs that are so destructive to the farmers' crops, particularly in May and the first two summer months, at which time they are also most fed upon, and amply repaying for the minute losses he may occasion, is highly worthy of esteem and protection.

The CAT BIRD, (*Orpheus felivox*, Swain.,) is one of our most abundant species, several pairs inhabiting every thicket, often frequenting gardens and swamps, and is at all times exceedingly unsuspicious and familiar. Though possessing no traits absolutely criminal, he is yet in bad repute with many, and great numbers are often destroyed for no better reason than the pilfering of a few berries from the garden, or of scratching up a very few kernels of corn. His name is, unfortunately, not prepossessing in his favor, obviously given from one of his peculiar and oft-repeated notes having some resemblance to the mewing of a stray kitten. The Cat-bird, however, possesses many decidedly original, interesting and familiar traits of character, among which is a prying inquisitiveness, often curiously exhibited; and seems to possess, as thought by some, a faculty of imitating, to some extent, the notes of other birds. "On attentively listening for some time to him, one can perceive considerable variety in his performance, in which he seems to introduce all the odd sounds and quaint passages he has been able to collect," and may well rank among those agreeable general performers that fill our thickets, fields and orchards with such pleasing melody. J. A. A.

Springfield, Mass., Feb. 15, 1861.

For the New England Farmer.

THE ADVANTAGE OF AGRICULTURAL OVER MERCANTILE PURSUITS.

It is a lamentable fact, that the sons of our New England farmers have become imbued with the erroneous idea, that the pursuit of agriculture is a dull and unprofitable employment, affording, at best, but a scanty remuneration for a life of toil; they endeavor to persuade themselves that a more congenial and lucrative occupation is to be found in the neighboring city.

Such sentiments operate as a check upon the steady advancement of agricultural pursuits, and I think no effort should be spared to convince those who entertain them, that their course of reasoning is quite erroneous.

A nomadic people, accustomed to subsist on the spontaneous products of the earth, takes its first step towards civilization, when nature failing to satisfy their wants, compels them to cultivate the soil, to insure more abundant and regular supplies. Commerce, and the useful arts, are the developments of agricultural wealth, and could not exist without the natural and artificial appliances of agricultural skill. But it is evident that all cannot follow commerce, nor all agriculture; for the two exist as extremes of a well balanced system and the increase of the one or the other beyond natural bounds would result in mutual deterioration.

But unfortunately, young men overlooking the opportunities for advancement in the occupation of their fathers, long to satisfy their ambition in engaging in commerce; yet many merchants who committed the same error in their youth, return during the latter part of life to the country, entering with new zest and awakened energies into the fascinating pursuit of farming.

Then, too, a city life is eminently artificial; living day by day, shut in by lofty and uninteresting walls, passing through crowded thoroughfares, jostled by the passing multitude, it is no wonder, that these merchants, tired and disgusted with this wearisome life, should seek relief in the more quiet country. There a new life seems opened before them; every surrounding serves to awaken their finer nature, dull and blunted by disuse. They see before them new opportunities of usefulness; they take pleasure in watching the increase of their flocks, in beautifying their grounds with rare and curious exotics; improving their lands, by draining here and watering there; erecting commodious and useful buildings; busying

themselves in the advancement of the science of agriculture; here they find true happiness.

Curious as it may seem, nevertheless it is a fact, such men are doing more at the present day for the improvement of our mode of farming than the old farmers have been doing for many years.

But why cannot our young farmers follow, as nearly as possible for them to do with their means, the examples set them by these merchants? They cannot deny that there is a wide field for improvement in every department of agriculture.

Much could be said of the moral influence of agricultural life. With all nature constantly before us, we are taught the immutability of the Creator, as exhibited in the natural laws; we derive much pleasure in the contemplation of his works, while we learn the great lesson of life, the true way of preparing for the final harvest.

Of the lucrativeness of agriculture, no proof is needed. The experience of our best farmers is being widely disseminated through journals and pamphlets accessible to all, so that all may profit by it. The science of agriculture, or book farming, is now becoming the guide, and the true one, to all desirous of improving; in short, every inducement is being offered by States, societies and individuals for the energetic prosecution of farming. I sincerely hope that our young farmers will become reconciled to this most beautiful occupation, and reject the deceptive impression that they can succeed better in the mercantile profession. F. E. F.

West Roxbury, March 28, 1861.

THE EXHIBITION PALACE OF 1862.

This structure is to exceed its illustrious predecessor in grandeur, in beauty of design, and elegance of finish. The main hall is to be 550 feet long, 250 feet wide, and 220 feet high! The picture galleries, built of brick, will be 2300 feet in length, 60 to 70 feet high, and from 35 to 55 feet wide. The nave and transepts are to be 2300 feet long, 80 feet wide, and 100 feet high. The sheds and other necessary buildings are planned on a corresponding scale. The whole work must be finished in less than one year from the present time, or by the 12th of February next. The Guaranty Fund, which amounts in all to £350,000, is headed by that truly royal patron of the Arts and Sciences, the Prince Consort, for £10,000. It is stated by competent authorities, that the entire structure will cost £250,000. It is to be located at South Kensington. The building will be made suitable for permanently remaining on the site, and will in every way outshine the Crystal Palace of 1851, or any other structure of modern times. A writer states that the great hall will contain a cubical area more than ten times as large as that of the great transept of the Hyde Park building, and that it would contain five of the centre transepts of the present Crystal Palace; its height will be unparalleled. There is a vast space to be occupied by the world's products, its inventions, manufactures, and works of art.

America will be allotted all the room she can creditably fill, and it is to be hoped that no time will be lost in making preparations for having the country well represented in all the departments. Many manufacturers may profitably exhibit their goods to the millions that will be gathered here from all parts of the world. It is, however, the American inventors who will reap the richest harvest of profit and honor. There are a thousand inventions in use in America which are practically unknown in Europe, that could form one of the most attractive collections of the exhibition, and the publicity thus given them will amply reward the exhibitors. Aside from those directly interested in the exhibition, we shall expect tens of thousands of American visitors in 1862. It will be a good time for London and the Atlantic steamers. Even the Great Eastern will be able to find profitable employment during the exhibition year.—*London American.*

SOILING STOCK.

On pages 302–3–4 of the monthly *New England Farmer* for 1859, we noticed, and gave a pretty long extract from, a small work on the subject of the *Soiling of Cattle*, by Hon. JOSIAH QUINCY. This publication, containing, as it does, the result of the experience of Mr. Quincy, commenced in 1814, in keeping and feeding cattle through the entire year in the barn, seems to be directing a good share of public attention to this practice.

A Philadelphia paper gives an account of what one and a quarter acres, seeded to clover, have produced in the way of green crops this year. From the first of May to the twelfth of June, eight cows and one horse were fed at the barn with clover cut upon it; when two of the cows were sold, and the land continued to yield an ample sufficiency for the remaining six cows and one horse until August 1st, at which time there was still a large amount of growing clover. The cows averaged ten quarts of milk per day, although purchased without a knowledge of their milking qualities. The land was most thoroughly prepared, subsoiled, trenched and manured, and was valued at some two hundred and fifty dollars per acre. The writer says it will be seen that over two years of food for one cow was produced on the one and one-fourth acres; and that the plan of the owner is to keep as many head of cattle per year as he has acres of ground, by keeping a proper portion in clover, grass, corn, oats and roots.

Similar experiments have been made in Massachusetts and in some others of the older States, where pastures are poor, land dear, and milk sells high, with this plan of keeping animals all summer in stables and yards, and feeding them on green food, raised, cut and carried to the barn for that purpose. But farmers, generally, after one of our long winters, feel so greatly relieved when their cattle go forth from their barns to feed on the comparatively spontaneous productions of their pasture lands, that we have sup-

posed the example of Mr. Quincy in feeding stock all summer at the barn, would be followed somewhat reluctantly by the mass of New England farmers. We have little doubt, however, that this system might be advantageously adopted by many farmers who supply cities and villages with milk, and by mechanics, professional men and others who keep a cow or two for the supply of their own families with pure milk, and who farm, in connection with their other business, from one-fourth of an acre, to one, two, or a few more acres; being often troubled to hire pasturage, and to get their cow driven daily to and from it when hired, and who cannot purchase adjoining land short of paying from $100 to $1000 per acre. To all so situated it is important that their land should be made to produce as much as possible, and for this purpose manure is the one thing needful. Mr. Quincy claims that by the soiling system compost may be manufactured from each cow of a value equal to that of her milk. The *Homestead* says, "If we have the materials at hand to work with, we can readily make 25 cords [Query.—Ed. *N. E. F.*,] of rich compost from each animal." Manure is the great want of New England farmers, and every plan for its increase which is not too expensive naturally commends itself to our attention. It is not strange, therefore, that the plan of soiling should be both advocated and practiced here, so far at least as to keep up cows while in full milk.

But, it is strange to us that a system which involves so much care and labor, and which we have ever regarded only as a sort of necessity imposed on farmers where land is limited, produce high, and population dense, should be recommended by our national teachers of agriculture as applicable to the pioneer settlements of our Western territory; that, because Mr. Quincy finds it profitable, near Boston, to soil his cows, where land is worth hundreds of dollars per acre, milk sells for six cents per small quart, and good manure for $8 per cord, therefore, it will pay "several times over" everywhere else! Such indiscriminate recommendations do more harm than good.

Among the papers which make up the Patent Office Report for 1859, is one by D. S. CURTIS, of Madison, Wisconsin, which advocates the soiling system as adapted to all circumstances and conditions, even to the unbroken prairie regions of the South and West. He says explicitly that "it can be clearly shown that the system will pay *several times over*, even in the new States where lands are cheap and plenty." He would keep not only cows and working oxen constantly in the stalls, but all young cattle also; for he looks forward to the total abolition of farm fences.

This we regard as a wonderful specimen of Patent Office farming! certainly so, when compared with the facts stated a few years since in an article on Domestic Animals, by the same high authority, of which the following are specimens:

"Mr. C. ZERINGUE, of Jefferson parish, La., says: 'Cattle three years old are valued here at $7 to $8 per head. They are raised at very little cost, the only trouble being to drive them together once a year and mark the calves."

"Dr. WHITE, of Quincy, Fla., writes: 'Value of cattle three years old about $6. The only expense of keeping is to ride into the range and mark and brand them in the spring.'"—*Patent Office Report*, 1849, p. 297.

"Mr. TURNER VAUGHAN, of Wilson County, Tenn., writes that 'the cost of rearing cattle until three years, is as follows; first year, $1; second year, $2; third year, $3. On my farm this can be and is done, and pays tolerably fair wages. A short time since I sold thirty-five head at the above-named age for $181, and did very well.'"—*Ib.* 1850, p. 117.

"Mr. MOSES COBURN, of Whitewater, Walworth County, Wis., says that the cost of rearing steers until they are three years old, in that region, is about $8."—*Ib.*, p. 115.

The farmer, then, who should "green soil" a calf till three years old, in Wisconsin, would receive at the rate of near five and one-third cents cents per week—less than one cent a day—for all the labor of raising, cutting and drawing to the barn the food for the aforesaid steers. How many times over will such soiling pay, especially in the hurrying season of the wheat harvest; when all your neighbors' steers are growing fat on the abundant products of Uncle Sam's free pasture?

In the annual report of the Secretary of the Board of Agriculture of Massachusetts, for the year 1856, are the details of some very interesting experiments with the food and milk of fifteen cows, which were kept on the State Reform School farm. For the purpose of ascertaining the cost and value of food, the animals were weighed twice a day, and the food also carefully weighed. The result as to the cost of the food of each cow, per day, was as follows:

When wholly kept in barn	$0.2430
When kept wholly in pasture	0.0715

English hay was valued at $15 per ton, meadow hay and corn stalks at $10 per ton, roots at half a cent a pound, &c.

Pasture land was estimated at $40 the acre, and five acres allowed to each cow. Interest on $200 one year, $12; taxes, $1; $13 divided by the days in a half year give seven cents and fifteen one-hundredths as the cost per day of pasturing one cow.

In the report of the same Secretary for 1858, (p. 24,) it is said that four cows were fed eight days on winter rye when in blossom, and that they consumed the crop growing on 13,384 square feet of ground, which would amount, estimating

the rye at $20, to $6,14, showing the money value consumed daily by each cow to be be $0.1919, (nineteen cents and nineteen one-hundredths,) nearly three times the estimated cost of pasturage, and considerably less than the cost of dry feed at the barn.

In Mr. COLMAN'S "Fourth Report of the Agriculture of Massachusetts," (1841,) p. 256, some facts are stated in relation to fifty cows kept in Lowell for the purpose of obtaining their manure for some use connected with coloring goods. The cows were kept constantly in the barn. In two years they consumed 418 tons of hay, at an average cost of $18,50 per ton; and for green vegetables during the same time were paid $1018; making $8751 as the total cost of the two years' feed of fifty cows—which is, according to our figures, a small fraction less than 24 cents (23.97) per week for each cow. No calves were raised. The quantity of milk obtained from the fifty cows in the two years, was 99,705 quarts, which at five cents per quart, amounted to $4985,25—*three thousand seven hundred and sixty-five dollars and seventy-five cents* less than the bare cost of the food they ate.

It will be perceived that in none of these cases is any allowance made for attendance, or for marketing the milk—the only object being to determine the cost of food consumed.

In the monthly *Farmer* for January, 1857, we gave a synopsis of the statement published by Mr. Horsfall, of England, in relation to his experiments in the feeding and management of milch cows. Although he goes so far as to warm his stables in winter, by artificial heat, as nearly as possible to a temperature of 60 degrees, even cutting and steaming most of his cows' food, yet from May to October—nearly one-half of the year—they have the range of a pasture. His language is:

"During May, my cows are turned out on a rich pasture near the homestead; towards evening, they are again housed for the night; when they are supplied with a mess of the steamed mixture, and a little hay each morning and evening. During June, when the grasses are better grown, mown grass is given to them instead of hay, and they are also allowed two feeds of steamed mixture. This treatment is continued till October, when they are again wholly housed."

We have thus presented, perhaps somewhat disconnectedly, a few facts which may deserve the consideration of those who are interested in the subject of soiling cattle.

REMEDY FOR RHEUMATISM.—Dr. Bonnet, of Graulhet, in France, states, in a letter to the *Abeille Medicale*, that he has long been in the habit of prescribimg the essential oil of turpentine for friction against rheumatism, and that he has used it himself with perfect success, having almost instantaneously got rid of rheumatic pains in both knees and in the left shoulder. He adds, that having several times soiled his hands with coal tar and other sticky substances of the same nature, and used the essence of turpentine, freely, like water, to wash his hands in, and then washed them again in soap and water, he, after drying them well, always experienced a prickly sensation, similar to that which is felt on receiving electrical sparks on one's knuckles. This sensation would last about two hours; and it is to this exciting action of oil of turpentine that he attributes its efficacy in rheumatism.

For the New England Farmer.

A GOOD CROP OF CORN, AND PRACTICAL FARMING.

Salmon Snow, of Saugus, raised last season from one acre of sward land, one hundred and seven and a half bushels of corn. The land was plowed deep, and well turned the fall previous, and harrowed smoothly in the spring. The only dressing it had was a small shovel full of common barn manure in the hill; hoed twice, the stalks cut at a proper time, and the corn suffered to remain in the field until late in the fall. This I considered a great yield. But it did not happen by chance; it was the result of doing the work properly, and selecting good seed.

Corn is considered one of the standard crops in New England. The farmer depends more upon his corn crop than any other, and yet the majority of them pay but very little attention to any improved method of cultivation. Draining is generally considered a waste of time and money. Selecting and improving seed corn is but little thought of, and yet it is one of the most important things to be attended to. It should be selected in the field. The best full ears should be picked off before harvesting, and traced up and hung in an airy, dry place. It is improved by taking it off before it gets hard and dry in the field. Corn ripens earlier by bringing it from the north. Land that usually yields but 25 to 40 bushels to the acre by the old skimming process, could as well be made to produce 75 to 100 bushels per acre, with no more labor.

Old ways and habits are hard to be changed or broken up. Much has been written, said and practiced upon draining, yet the majority of farmers regard it as an outlay that does not pay; while it is the reverse, nothing pays better.

Notwithstanding all that has been written against pruning apple trees in the spring, people persist in doing it at that season, and ruin their trees, only because it is an old custom, and a little more convenient. Why not shear your sheep in the winter, when you are most at leisure?

Farmers, do your work well, and at the proper time, and we shall not hear so much croaking about farming being unprofitable. I am ashamed of the man that attempts to prove that farming is unprofitable. Sufficient has been published in the *N. E. Farmer*, during the past year, to prove that farming is the most elevating occupation for man, and that the farmer is the nobleman of the land. Farming is now in its infancy. There are many things to be corrected and improved. The *N. E. Farmer* is doing its best in the work. The

agricultural meetings at the State House are doing a vast amount of good in correcting old errors and mistakes. No one can attend them without being greatly profited. The subjects discussed there are all practical, and draw out the information needed. The young farmer can go into one of those meetings and learn from a speech of twenty minutes from one of those old practical farmers upon some particular branch of husbandry, that which would take him years to learn by practice. A. PHILBROOK.

East Saugus, March, 1861.

EXTRACTS AND REPLIES.

A NUT FOR SOME ONE TO CRACK.

MR. BROWN:—I would inquire of you or some of your correspondents through the *Farmer*, how I can manage a two-acre farm so as to give me employment through the summer season, and give me a fair remuneration for my labor? That is, what crops may be raised that will be marketable, and sell readily for cash? My lot is three miles from the Western Railroad, and twenty from the nearest city, (Springfield,) yet there is an express running three times a week from this place to the depot. The soil is dry and warm, about half quite good, and the remainder rather poor.

What kind of strawberry would be best adapted to this latitude, and how many plants would be required per rod? Would that be a profitable crop, so far from market? How soon would dwarf pears be in bearing, if set next fall?

Huntington, Mass., May 1, 1861. C. F. R.

REMARKS.—We leave the above for some of our intelligent correspondents to answer, as the exercise may be useful to them, and if the questions put are carefully considered and answered, will be of value to a large number of persons.

EGGS AND SHEEP.

Can hens' eggs be sent by express from Uxbridge, Mass., to this place, (Waterville, Me.,) without injuring them for hatching?

Which would be the most profitable, where one keeps a small flock of sheep and lives near a large village—to keep sheep whose flesh or wool are their leading merits?

Had I better procure my garden seed that grew in the State where I live?

Waterville, Me., 1861. B. T. STEVENS.

REMARKS.—If carefully packed on a layer of hay or straw thick enough to afford some spring, or elasticity, they would go safely. Cannot tell about the sheep—do not know what your village demands. Select sheep that are good for both flesh and wool. If you can purchase well-ripened seeds grown in your own State, do so.

SCRATCHES ON HORSES.

Having seen in your valuable paper some remarks in regard to scratches on horses, I would say there is only one remedy, and that is, to keep the castors on the inside of their legs soft, by an application of soft grease, and peeling them off. If this is done, my word for it, the horse will never be troubled with them; and with those affected, the application of this simple remedy will effect a sure cure. E. MINER.

Walpole, N. H., May, 1861.

SHEEP AND OATS.

I noticed in a late *Farmer* an inquiry, "Will oats hurt sheep?" I would answer the inquiry by saying if "N. M." will select some good, healthy sheep, in the fall, and commence giving them one gill of good, clean oats every day, and what good hay and pure water they will take, and give them a good, warm shed to lie under, and then increase the amount of oats slowly up to one quart to each sheep every day, I will warrant him that the oats will not kill his sheep. I would also give him a recipe for killing lice on calves. Commence in the fall when cold nights commence, and give each calf a handful of good, clean oats every day, with what good hay and water they will eat and drink; then increase the amount of oats slowly for six to ten weeks, and then give them so many so they will leave a few in their troughs, and take them and rub them on their backs, and I will warrant that the calves will not be troubled with lice! A SUBSCRIBER.

Warren, Vt., April 2, 1861.

HOW TO GET FITTED FOR THE FARM.

While my associates in the prime of life, aroused by the war cry, are rushing to the scene of strife, I would not forget that our agricultural interests still demand attention. But I am perplexed with the question as to how I may best advance its interests.

Have we already enough of the theory of farming, and should young men apply themselves to putting it in practice, or may those whose circumstances admit of it, derive real, practical advantage from a course of study at our agricultural colleges? Is the system of study to the purpose at these institutions, and such as farmers stand in need of? I. W.

Orange County, Vt., May, 1861.

REMARKS.—Enter Mr. WARD'S school at Bernardston, Mass., where you may get both the theory and practice of agriculture, and qualify yourself to become distinguished as a leading agriculturist.

DRIVE PIPE FOR A HYDRAULIC RAM.

In reply to the inquiry of Mr. E. C. Allis, for a suitable drive pipe to force a No. 4 hydraulic ram, allow me to say that from actual experience, I have found a malleable iron pipe, inch and one-fourth in size, to be the article exactly suited to the purpose. The cost is less than that of lead of the same diameter. J. H. G.

Hubbardston, May 7, 1861.

SILK WORMS' EGGS.

I should like to obtain information where silk worms' eggs can be procured. As I have a few mulberry trees, I could raise our own silk thread for family use. I have formerly done so, but am now destitute of those eggs, and do not know of any in this vicinity. ISAAC STEARNS.

Mansfield, May 8, 1861.

A "CHAFFING" MACHINE.

In your issue of April 27th, there is an article pertaining to the corn crop, by "K. O.," in which he speaks of a "Chaffing Machine." If the machine does what he claims it will, it certainly is a valuable addition to a farm. Is there any machine near? What is the cost of the machine? If you have seen it work, please write what you think of it. E. S. FLETCHER.

Whitinsville, April, 1861.

REMARKS.—We suppose a common hay or straw cutter is meant. The one referred to by "K. O.," we know nothing of. It may be one of the several kinds in common use.

AN ECONOMICAL HEN HOUSE.

Will you or any of your readers describe an economical and well-constructed hennery for keeping fifty to one hundred hens, and oblige.

A SUBSCRIBER.

South Deerfield, Mass., 1861.

REMARKS.—In the course of a few weeks we will comply with the above request.

A NEW WEEDING WHEEL HOE.—We have been using, for a few days past, a new wheel hoe, which, for weeding between rows of vegetables in the garden, or any light work to which such an implement is adapted, is the best we have yet seen. It has but one wheel, and that guides the cutter and enables the operator to move the implement along easily and with facility. The cutting part is a thin plate of steel which may be raised or lowered at pleasure, and when broken or run out, replaced at trifling cost. It is the invention of Mr. B. F. TAFT, of South Groton, which will prove a valuable aid to the gardener, and will be especially acceptable to lady gardeners.

LADIES' DEPARTMENT.

A SIMPLE CURE FOR THE ROSE-PESTS.

[We have received the following note from Mr. James H. Park, an experienced florist in Brooklyn. The simple remedy which Mr. Park, suggests has been tested by him in his skillful treatment of his own plants.]

To the Editors of the Independent:—The growers of roses in and around our cities have many pests to contend with, chiefly owing to the scarcity of their natural enemies, the birds.

First in the season, on the early shoots come myriads of the "green fly." With the young buds comes a voracious little black-headed caterpillar, which weaves itself a retreat among the tender leaves, and has a decided penchant for "sweet little buds," a bunch of which he can readily dispose of for breakfast. Then comes the "Thrip," a diminutive white fly, which can easily be seen by shaking the branches. This little pest punctures the leaves underneath, causing them to become speckled with white, and destroying their vitality to a great extent. With it comes the "Strip-worm," of late years especially destructive. It is a small green worm, and feeds underneath the leaves, stripping them to the scarf-skin, not only disfiguring the plants, but destroying their growth for the season.

To cure all these ills the rose is heir to, it is only necessary to syringe the plants, say once in two weeks, with an infusion of *ailanthus leaves*—which I have made in the following manner, but which may probably be improved upon by varying the quantities: Take as many young leaves or shoots of ailanthus as can be pressed into half the depth of a common pail. Pour on boiling water till the pail is full. Let the water stand fifteen minutes, then pour it off, and add to it about thrice the quantity of clean water, which use when cold. Syringe thoroughly, particularly under the leaves, and begin early in the season, before the enemy has his vantage-ground taken.

This I have found to be an effective remedy, without injuring the plants. How it effects "Red Spider," I have had no opportunity of testing. There is little doubt, however, that it would keep the measuring-worm from our street trees, if applied in good time.

I believe a chemist might prepare from the ailanthus leaves and flowers a decoction which would be most valuable to all gardeners throughout the year. The above receipt is too valuable for any lover of flowers to reserve exclusively to himself, and as the remedy is cheap enough, I hope those who have suffered from the insects will not fail to apply it; so that, even in the city, we may have good roses, and green leaves with them, throughout the season. A writer in the *Tribune* suggests the importation of house-sparrows as a remedy for street-worms; but these sparrows are seed-feeding birds, and though they may vary their repasts a little, as domestic animals and birds are apt to, I question after many years' intimacy with them if they would touch so tough and ugly a customer as the measuring-worm.

STEWED BEEF.

Housewives who are in a habit of using only steaks and roasts, make a great mistake. A capital dish may be made out of the "chuck" as the butchers call it, or the neck, when well prepared. Select a piece of meat as large as the demand of your table may require, wash it well to remove all the blood or soil from the outside, have your dinner pot perfectly clean, salt and pepper the meat well, lay it in the bottom and cover it with water; boil it from two to three hours, or till it is thoroughly tender; add half an onion, a sprinkle of sage, thyme or summer savory.

If the meat is fat, let the water all stew out a half hour before it is put on the table, and when your meat is browned well on the lower side in the gravy, turn it over and brown the other side. When ready, take it up, add a little flour thickening to the gravy, or if you have a dredge box shake the flour into the hot gravy and brown it, then add boiling water, and you will have a dish equal, and to my mind superior to the common roast beef, upon boarding-house tables.

Care must be used to turn it; and equally necessary is good judgment in having it thoroughly well-cooked.—*Field Notes.*